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THE
CITY and COUNTRY
PURCHASER
AND
BUILDER:

In Two BOOKS,
Composed by S. P. Gent

The Second Edition,
Much Enlarged

By WILLIAM LETBOURNE.

By whom is also added a Third Book,
Shewing how to dispose & proportion
the several Rooms in any Building :

And to place Doors, Stairs, Windows, Chimneys, &c.

AS ALSO

The Art of measuring Superficies and Solids ;
with Tables for that purpose.

Together with

The way and manner how to measure the
Works of the several Artificers,

By the most exact ways yet practised.

With Cautions to be observed in all.

L O N D O N :

Printed for John Wright, and the Assignes of Sam. Speed;
to be sold by William Leach, at the Crown in Cornhil,
neer the Stocks Market. 1 6 8 0.

Thom. Tanner.

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To the Right Honourable
Sir Orlando Bridgman, Knight
and Baronet,

Lord Keeper of His Majesties Great Seal of *England*,

A N D

L^d Ch. Justice of His Majesties Court of *Common Pleas*.

Sir John Keyling, Knight,
Lord Chief Justice of *England*.

Sir Matthew Hales, Knight,
Lord Chief Baron of His Majesties
Exchequer.

And to the rest of the Justices and Barons
appointed by

ACT of PARLIAMENT

For Determination

Of Differences touching Houses burnt down,
or demolished by reason of the late Fire
in L O N D O N.

May it please your Honours,

THe truly merited Reputation by your
Honours equal ballancing the Scales
of Justice, hath, and is the daily cause of
so many Petitioners to you for the same,
A espe-

The Epistle Dedicatory.

especially in the late wisely-erected Court of Judicature; wherein your Honours, by your quick and delighted equitable dispatch of such Differences as have come before you, hath sufficiently testified your undoubted Loyalty to our Sovereign Lord the KING, and Amity to his People, and the Encouragement of such things which doth in any wise tend to his Honour and their Welfare. Some noble Citizens having scarcely recovered their Fiery Consumption, have seem'd more concern'd for your Honours trouble and loss of time in Regulating their Differences, than at their own Losses; wishing they might have any Rule thereby to decide the same, so that they might not be constrained to trouble You, who think it no trouble to do good: I conceiving there might be some Rule prescribed, whereby many of their Differences, as to point of Interest, might be determined by themselves, and a Direction shewed how to Compute the Charge of any City-Building, did forthwith consult with some better approved Judgments than my own about the
same;

The Epistle Dedicatory.

same ; who did agree that such a thing being done , would much encourage the City-Builders , and tend to the speedy Re-building the same ; but moving them to be the Authors of this intended good Work , assuring them of my mean Assistance in furtherance of the same : Which not succeeding according to my desire , and having , as I humbly conceive , some knowledge in this kinde , which I apprehended in this conjuncture and exegence of time , to be very beneficial to be communicated to my Native Country , and this desolate City , did not think fit at such a time wholly to suppress the same.

To present to your Honours a thing of so mean worth , is an act (I confess) of great presumption , yet in regard Books , which do but pretend usefulness to the Publique , have ordinarily addressed themselves to the Patronage of Wise and Learned Persons , I want not presidents for such a boldness ; and being conscious to my self of no worse aim in the publishing

A 2

of

The Epistle Dedicatory.

of this Work, than the good of my Country, I have this presumption, besides my other, that I shall not incur your Honours displeasure.

Your Honours

most humbly

devoted Servant,

Stephen Primatt.

THE



THE
P R E F A C E
TO THE
R E A D E R.

HAVING had some spare time in a long Vacation, I thought I could not employ it better, than in doing something which might tend to the forwarding the City-Building, (being the Metropolitan of this Nation, and so reputed before *Julius Cæsar's* time; the Glory of the Major part of which is now, Phenix-like, buried in its own ashes) to do which, I first consulted the Inclination of my Country-men, the Noble suffering Citizens and Bees of this Nation, who I found (as they were ever famous for promoting such things which were for the Publick Honour and Good) very willing and desirous to build : but some of them were impeded by certain Differences arising amongst them, as

To the Reader.

to their respective Interests in the Ground, and late Houses; others through their unskilfulness in building, were not less indisposed to it: for that many of them are compelled to trust to the Conscience and Fidelity of Workmen and Surveyors, who have been observed to make Harvest in the City-Ruines, and combine together to take excessive Rates for their Works; which hath dis-encouraged many of them. As to the former of these, there is prescribed certain Rules and Tables, whereby the Proprietors may decide their Differences, as to point of Interest, by themselves, without troubling the most Honourable Court of Judicature, and Directions shewed how to Value any Ground in the City. As to the other, there is an Inspection made into the Artificers Trades employed in Building, therein unfolding the several Rates and Prices of several sorts of Work, and after what manner they make their Bargains, and agree for performing the same; then have computed the Charge of several Houses, for several Dimensions, Materials being at certain Rates there proposed.

In the first Part, there is a Treatise of Purchasing Lands and Houses, and other things in *England*; which I thought necessary, for that some men sell their Lands and other things, to the intent to bestow their Money in Building. And that nothing might be wanting wherein
my

To the Reader.

my small time and Experience could inform you, I have concluded with Surveying and Measuring *Superficies* and *Solids*, as a necessary thing to be known to the Builder. If the Non-confident Author hath been any ways defective in attaining the end proposed by him, he hopes at least it may give occasion to those who are more Learned, to attempt something in this kinde, which may encourage the Re-building this Famous City, wherein any Ingenious Undertaker shall not onely be accompanied with my well-wishes, but shall be assisted by whatsoever is in the power of

*From my Chamber at
Cliffords-Inne this
14th of October,
1667.*

S. P.

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THE CITY and COUNTRY Purchaser and Builder.

The First B O O K.

A General Treatise how to compute the value of Lands in England, and what makes them of that value : with advice to a Purchaser, and Rules prescribed to purchase.



I is not my intended purpose to make any long Treatise on this point, only so much as may somewhat conduce to the information of the Purchaser and Seller of Lands or Houses, as to their respective values, and what makes them of that value in any part of England; the Purchaser being sometimes over-reached by the Seller, and the Seller sometimes selling his Lands or Houses for less than they are worth; both which proceed either for want of Reason and Judgment to know the nature of the thing, or for want of skill in Arithmetick to find out the true value. Of both which in the ensuing Discourse I shall give you some account. And shall therefore commend to you these few Observations following, to which the Ingenious Readers Judgment may make a great addition.

First, to consider the quantity and quality of the thing you are about to Purchase, and what casualties it may in probability be subject unto: As, if it be Land that is near the Sea-Coasts, or any great River, the Banks may be subject either to be beaten down by the ebbing and flowing of the Sea, or to be overflowed; which banks may require great cost in repairing, and the Lands more in draining; Lands being often after such overflows of little or no use for three or four years together, there coming in with such overflows very great quantities of Sand: But Lands lying near great Rivers, are not altogether so very perillous; but that sometimes it tends to the Owners and Purchasers profit to have their Meadows overflowed. Another casualty is that of poor Tenants, not able to pay their Rents, who are disabled sometimes by a Season that is too siccid or dry, or a Season that is too moist, so that the earth is not of that due temperature of heat and moisture as to produce its wonted increase; and at other times when there is a good increase, they bear little or no price at the Market. Another casualty or accident is that of Fire, which comes by lightning, or through negligence of neighbours or servants, which many times consumes a Farmers house, Corn and Barns, and doth undoe him. All which are damages that many times light very hard on the Landlords.

Secondly, to consider if there be any Edifices, as Houses, Barns, Stables, and such like upon the same, and whether they be in good and sufficient repair, or well Thatched or tyled; and if not, what will repair them?

Note, That Farm-Houses, and Barns upon Lands generally in England, are of little or no value, and are not usually valued in the purchase, but are cast in with the Lands to the Purchase; except it be of decent Houses made for

for the dwelling of Gentry or Citizens of accompt within twenty miles of London, and of other houses which are situate in some principal Cities and Market-Towns of Trade, and such which are not peculiar for a Farmers family and use.

Thirdly, consider whether the Land be Barren or not, whether it be occasioned by the heat or constitution of the Climate, scituation on a hill, or in a dale : or what the mould or earth is under the superficies thereof ; as, if it be a clay, whether it be more subject to be dry or moist, or whether in a *medium*, which is very good ground for Grasse or Beans, and other things which are of a gross and rank nature and quality : or if it be upon an indifferent dry clay, having a convenient degree of moisture , then it may be good for most sorts of Corn ; or if it be on a moist, with some degree of drought, then for Meadow or Pasture: if it be on a Rock that is near the surface, then it is very often Barren, and good for little or nothing , but to feed sheep, and such like uses. The best sort of ground for most uses, is a well-tempered Clay or earth about two yards thick, under which there may be Gravel, Chalk, Marle, or red earth, with divers others too long here to make mention of. Barrenness doth not altogether proceed immediately from these causes, but sometimes from hidden causes in the bowels of the earth, as the Sulphurous steams which arise out of the pores of the earth , and dry up the root , so that it becomes barren : These fumes proceed either from Mines of Coal, pipes or rakes of Tin, or Lead-Oare, Mines of Brimstone, Iron, Stone, or Lime-stone, and such like. I do not set these down as general rules for barrenness, there being ground under which all these are, which is fertile ; as under Coal-mines which are covered with a shell of stone about a fathom or more thick ; This stone doth so depress the fumes where the same is, as that in many places there is very good ground where Coal-mines are ;

so that I refer it to the Sellers or Purchasers judgments, what may be the cause of their grounds barrenness. Only this I would have the Purchaser to make inquiry, whether the same hath not been made barren by reason of too much ploughing, and the heart of the ground worn out by that means; and if he find that it be, then not to value it at the rate it formerly yielded; or if he do, to make deduction of the cost in manuring the same.

Fourthly, to consider whether the Lands to be purchased be inclosed. Inclosed Lands in many places do yield half as much, or as much more, as Lands in common fields. And if they be inclosed, whether the inclosures be decay'd for want of good Husbandry; and if they be, to deduct the charge of repairing them: and to consider what quantity of Trees be in the inclosures? whether the same be Timber-trees or not? and what value they might yield if they were to be sell'd? And if there be any wood-ground, what quantity of Acres, and the quality of it? whether the same be Coppes, Underwoods, or Timber-trees?

Fifthly, to consider if there be any veins or seams of Coal in the bowels of the earth; and if there be, whether valuable or not? many brave Collieries being worth little or nothing, either by reason there is no shell-stone for a roof to support the ground, or by reason of the great quantities of water which are usually in the caverns of the earth, which are very chargeable in the dreining of them; so that many men by such undertakings are often undone. And it may not be valuable upon another account, that is, if it be in a place where there is great plenty of Collieries; and although the same have a good Roof-stone and free from water, yet if it have not the conveniency to convey the same at a small charge to some River to have the coals exported, they will not be worth the trouble and charge in obtaining them

them. Or if there be any rakes or pipes of Lead or Tin-Oar, which commonly lye in the caverns of the earth, in a Self open between two rocks, there being for the most part where there is Lead-Oar, above the same great quantities of Lime-stone. These Mines are very subject to have great quantities of water in them; but they for the most part lye in Mountainous hills, so that in most places they have the conveniency of driving a drift or Sough from the bottom of the hills to the sole of the Rake, so that the water runs away from the Rake upon a descent: But the charge of driving such Soughs or trenches is very great, they being sometimes forced to drive through divers hard rocks, so that the same at such places is very chargable, and costs about forty or fifty shillings or more every fathom, being forced to mollifie the Rock by fire, so that their Tools may make way through the same; and this many times they do for half a mile, or a mile together, or more or less, as it may require. And sometimes after great expence and trouble, they miss the rake or vein; which if they chance to light on, it doth often prove to be of little or no value, having but a small body of Lead-Oar. These Mines likewise are very casual, and many an ingenious man is often undone, by the venturing his certainty for the uncertainty of the same. Or if there be any Tin-mines or Quarries of Iron, Stone, Lime-stone, or Marl, or what ere it be that the earth doth produce, I refer it to the Purchasers Judgment to set his valuation on the same: onely this, that Mines, of what nature or kind soever in *England*, are for the most part very great casualties, and the profit of them very uncertain.

Sixthly, to consider if there be any small or great Rivers running through the ground to be purchased; which if there be, let the Purchaser make diligent inquiry whether the same be of any considerable value as to the fishing thereof, or what other benefit may arise thereby?

whether by overflowing the Meadows there adjoining? or if there be Corn-Mills, Paper-Mills, Powder-Mills, Smelting-Mills, Fulling-Mills, Forges or Furnaces upon the same? And what the same be, that may produce profit? As suppose them to be Corn-Mills, Paper-Mills, or Powder-Mills, and such like; you may consider whether they be not decayed for want of repairing? which if they be, consider what will be the charge of such Repairs? or whether the same be in Lease? and whether the Miller is not bound thereby to repair the same at his own charge during the said term, and to pay a certain rent for the same? which particular thing may make the same very valuable; the usual Bills brought in by Millers for their repairs, being sometimes a moiety of the rent, or a very considerable part thereof: Mills being very subject (although made very strong) to decay. Or if there be any Smelting-Mills or Furnaces upon the same, you may in particular take these and such like observations. First, as to the Smelting-Mills, which is properly for refining Tin or Lead out of their particular Oares, you may inform your self what quantities of woods there be about the same, there being very much consumed by these Mills. Another thing to be considered is, whether the works in Mines of Lead or Tin-Oare, are like to be of any continuance, and not to be drowned or impeded by the great quantities of water which usually attend such works: or whether the body of Oare in the Mines which doth employ the Smelting-Mills be of any considerable wideness or length, and is not likely to be worn out or exhausted suddenly. And to consider the richness or poorness of the Mine, some Oare in time of peace yeilding Thirty six shillings, or Thirty seven shillings a Horse-load (which is nine dishes, as they compute, weighing about Four hundred and Fifty pound) when as other Lead-Oare in other Mines, will yeild not above Thirty shillings, Five and twenty shillings, Twenty shillings, or it may be not above

above Eighteen shillings. All which are valuations as to the quality and quantity of Lead as they respectively yeild when they are smelted or cast into Sows or Pigs of Lead. As to Furnaces and Forges, you may take these and such like observations. As to Furnaces, which are properly for the smelting of Iron-stone, and making metal thereof, and sometimes casting the same into Iron Guns, Bullets, and Iron backs for Chimneys, or such like uses; you may consider what charge the digging or procuring of such Stone may be; it being in most Countries where such furnaces are, very plentiful, and procured and gotten out of the Earth for a very small charge: for if it should cost much the procuring, it would not be worth the obtaining, and to be at Fifteen hundred or Two thousand pounds charge in building such Furnaces, laying their Hearths, and providing great stocks and quantities of Charcoal for the same. As to the Forges, they being particular for the forming of Iron metal into bars of Iron, for conveniency of carriage, or into what other form they please, the force of the water lifting a great Hammer of about three hundred weight or more, which strikes when they make use of the same upon an Anvil for that purpose; these likewise cost great Sums of money the building and fitting, and they are at great charges daily for repairs, and consume great quantities of Charcoal.

There is another Mill employed about Iron-works which they term a Stirring-Mill, which is for the forming of Iron into some fashion, as into Iron-rods, Nails, and such like things, for common and ordinary occasions. In the Purchasing or dealing for things of this nature, you must have a particular regard to what quantities of wood there be about your Forges or Furnaces; and to have special care, lest when you have the same, you be not to seek for such materials, and be forced to buy them at excessive dear rates. Works of this kind consume the

greatest part of the woods in the Countries where they be: And do require great stocks, and a good ingenious contrivancer in the managing the same. It behoves the Purchaser to consider whether his Mill be an under-shot Mill, which is the water driving the same under the wheel; or whether it be an over-shot-Mill, which is the water brought to the top of the wheel, in landers or troughs which cast the same into Buckets made in the wheel for the receipt of the same, the force and weight of which water drives the same: or whether the same be both an under-shot and an over-shot-Mill; or whether there be a continual current, so that the mill may be alwayes moving if they please; or whether the water be kept up by Art, in sluices, for the better managing that little water as they have. If the same be an over-shot Mill, it is many times very uncertain as to its water: but suppose it be certain, as to that it requires for the most part more money for the making of Dams and Landers for the conveying of the same upon the wheel, than the under-shot-mill doth, which for the most part runs at a greater certainty. I shall not need to give you any further account as to these Mills, onely that you may observe that there be a continual supply of water for the driving the same, and to consider, if the water you make use of do not come from any Spring near the place, and whether the same be not usually dry in the Summer, although you may have a good supply of water in the winter: the Springs in most places of *England* increasing from the latter end of *September* until the latter end of *March*, and from thence they decrease, and become in many places either dry or very low.

Seventhly, to have regard to the scituation of the place, first, as to the Air (if the Purchaser doth purchase the same for his own habitation,) he may particularly take his observation as to the soil, whether the same be dry or moist; unto the mould of the earth under the
same,

same, whether the same be well-tempered clay, or chalk, gravel, lime-stone, or a marle, or red earth, or barren Champion ground; from all which there doth proceed well-tempered fumes, not at all repugnant to the constitution of most *English* mens bodies; the Air being particularly rarified and diversified by the steams or breathings which are exhaled from the pores of the earth, and the Air doth partake of the same: or whether the soil or mould be of a moist and rank quality, as it generally is near and upon all moors and marsh ground, as is observed to be in *Essex*, *Lincolnshire*, *Kent*, *Sussex*, and other places where there are such grounds, and near the Sea-coasts, where the Inhabitants are subject to have Agues and other Distempers. If the Air doth so badly agree with the Inhabitants, how will it with such as have been used to a more temperate and rarified Air? It hath been the observation of many Learned Physicians here in *England*, that the barrenest sort of ground for the most part produces the best Air, as on *Bansted Downs*, *Hamstead Heath*, *Salisbury-Plain*, and divers other places of Champion ground in *England*, which are very famous for curious Air, and as infamous for their barrenness: and that meadows and marsh grounds, and such like moist ground lying near the Sea-shore, and great Rivers, are for the most part very unhealthful, and noxious to most mens bodies and constitutions, there proceeding from them too moist and gross vapours.

Secondly, to the situation, whether near a River running to the Sea, for the exportation of such things as the Land doth produce, whether it be Corn, Wooll, Lead, Iron, Tin, Coal, Mill-stones, Free-stone, Tyles, Bricks, Timber, or commodities of what kind soever. Many Countries produce more of many sorts of commodities in one year, than they are able to consume in seven; and if they should want a conveniency of communicating the same to their Neighbours, they would be of little

tle or no value to them : and not only so , but also to compute if the Lands or things to be purchased be of any distance from such Rivers, and what will be the charge of the carriage of such Commodities to the same ; and when they are there, what will be the charges of carrying them in vessels to the Sea ; and what will cost for shipping the same to the Port or usual Market designed for such commodities : and this done, then to compute (or first compute) what the commodities will cost procuring or obtaining before they be fit for such carriage or exportation ; and then you will plainly see what price or rate you may give for the Land or thing to be purchased, and so be able to value the same. Or whether the same be near any City, or Market-town ? or in any principal Road to *London* , or any other remarkable place, so that the concourse of people doth cause a Trade in the same; or whether there be plenty of such commodities in or about the Land or thing to be purchased, which doth make the same commodities to be very plentiful thereabout. Plenty of commodities many times causes a scarcity of Chapmen in the Markets, and doth very much abate the price of commodities.

Eighthly, to make inquiry amongst the Neighbours and correspondents of the feller of the Lands , as to his honesty in his dealing with and amongst them ; and whether he be not litigious and quarrellsome, and subject to go to Law upon every nicety , and to take advantage of every casualty and accident. Let the Purchaser , if he find that he hath by any means contracted a bad Name , enquire how he contracted the same, whether by defrauding, or intending to defraud any of them : or whether the same be contracted by matters of opinion in Religion ; many ignorant Men being apt to raise disputes of that which they are not of capacity to understand ; and in their discourse about the same they seldom are bettered by it, or come to any conclusion, except

cept it be that foul conclusion of hatred and malice against each other : or whether the same be not occasioned by some Tavern or Ale-house-quarrel, which many times proceeds from words mis-placed , or one idle account or other. Let the ingenious Purchaser slight all such petty exceptions as these : But if he find them to be and proceed from a bad Name otherways contracted , and doth resolve notwithstanding to go through with the Purchase, let him observe some Rules hereafter mentioned. But if, on the contrary, he hear an indifferent good Character of him , as to his honesty and fair dealing, let it be somewhat of satisfaction to him, but not satisfactory ; there many times lyes a fish in an unsuspected hole ; some Men making it their endeavour to acquire a good repute , that when there doth a convenient opportunity of defrauding any Man happen, they may do the same more plausibly and unsuspected : such Men as these, are many times great pretenders to Religion : Of such persons as these, being the craftiest and politiquiest sort of knaves (if there be any craft or policy in knavery) let the Purchaser be very circumspect, and look into the nature and constitution of the Man and of his temper , and take notice whether his words being connexed keep harmony ; mens Hearts and Mouths tending two several ways , do oftentimes jar, it being often observed, that lyers ought to have good memories : and enquire likewise the cause of his parting with such an Estate ; and observe that such as you make inquiry of, be not partial in their account to you , being obliged by some peculiar favour, or disoblighd by some discourtesie.

Ninthly, having taken all these Observations , and such others as to the Purchasers judgment may be requisite ; Another thing most requisite to be considered by him , is, what Title the same be , whether Fee-Simple, Copy-hold, or Lease-hold ; whether for life or years

years; or whatsoe're it be, let the Purchaser in this point take with him the advice of some able Councillor or Attorney, and not rely too much upon *Scrivener's Law*, and their Books of Presidents; although there may be many good things in the same, yet they are like bold Apothecaries that venture to administer Physick without the Doctors advice and direction; although the Medicine may be very good in it self, yet it may not be properly applyed to their Patients infirmities, they wanting skill to state their disease, which being rightly stated, is half cured. Ignorant Scriveners make work for Lawyers, as the Apothecaries do for the Learned Physitians. Many Purchasers being in this point penny wise, and pound foolish; who, to save their Money, go to unskilful persons for advice, but oftentimes (though too late) they pay the Lawyer better in the conclusion, in the Suits occasioned by their Errors. Let the Purchaser therefore take good advice at first, thereby to prevent lest he too late repent.

Tenthly, let the seller be plain in his dealing, and discover the truth of his Title to the Purchaser while the business is in action, and let him not reserve from him any writing or evidence which may concern the title of the thing to be Purchased. The reserving of Evidences and other sinister dealings, hath often created much trouble, not only to the Buyers and Sellers, but even to their posterity.

A Particular computation of Lands; and how many years Purchase, and what may be given for Land in Fee-simple, for term of Life or Years, for Copyhold-Estates, Advowsons appendant to Mannors, or in Grofs, Mines, Mills, with other things.

HAVING given you some general Rules to be observed in Buying and Selling of Lands, I shall proceed to speak of Lands in particular. First, as to Lands in Fee-simple, they being in many places worth twenty years Purchase, in others Nineteen, in others but Eighteen or Seventeen, or it may be not above Fifteen or Sixteen: Let the Purchaser take notice, that the rates allowed for Money at Interest, is for the most part a rule for the valuation of any Purchase. And this not only so in *England*, but in most places of the World; as in *Holland*, *Venice*, and other places, their money yeilding not above three pounds in the hundred, makes them value their Lands at thirty five or thirty six years Purchase, and their Houses at twenty eight or thirty years. It may be objected, that this Rule doth not in this particular hold true, for that Lands at the rate of twenty years Purchase, do yeild but five pound in the hundred, whereas money at Interest yeilds six *per cent.* five *per cent.* being an indifferent competency, considering the certainty of the same: and how uncertain money at Interest often proves, by death of Sureties, loss of Bonds; and sometimes having to do with knaves, they produce forged Releases; and that men are often put to trouble about the same, sometimes being (through prudence) forced to call their money in, either upon the death or supposing failing of one or more of the Sureties; or for that they are not willing to be longer obliged, and so are willing

willing to return the money ; and divers other casualties do attend the same.

There be many reasons why Lands are better than money : although the same do yeild less at present, yet if the Purchaser have an indifferent pennyworth , his Lands are oftentimes upon an improvement ; it having been observed, that Lands let at old rents, are sometimes improvable twenty in the hundred *per annum* ; which very thing may make Lands more considerable at five pounds *per cent.* than money at Interest at six. Another reason is, for that Lands by the course of the common Law of *England*, doth descend to the Heirs of the Possessor ; it being many mens delight to have the same continue to their posterity, and in their own names; whereas money goes to their Executors or Administrators, and is often imbezled by them , and turns to no such account.

Lands in Fee-simple in and about *London*, as in *Middlesex*, *Hartfordshire*, in most places of *Surry*, *Kent*, *Essex* and *Sussex*, *Buckinghamshire*, and other places adjacent to *London* ; and in other places of *England*, where they lie near any City or Market-Town, or any River for the conveying of their commodities to proper Markets for the vending the same, are for the most part valuable at twenty years Purchase : the reason being, for that in such places there be choice of Tenants, so that the Owner of the Land is for the most part at a certainty either for a good Tenant, or for a good Market for the Fruits thereof; or if the Owner have occasion to borrow money on the same, it is soon enquired after, and he need not seek a Chapman for the same : Whereas some Lands in remote places, as in *Yorkshire*, *Lincolnshire*, in the Counties of *Norfolk* and in *Suffolk*, and in many other places distant from Cities and Market-towns, and Rivers, are nothing near the value, and will not yeild above

Fifteen

Fifteen, Sixteen, or Seventeen years Purchase at the most ; the cause being the scarcity of industrious and sufficient Tenants in such places, being but poor men for the most part ; so that their necessity doth force them to accept of Farms upon Rack-Rents, and more than they are worth, let the Landlords come by their Rents how they can : whereas Tenants that live near places of Trade, are many times more sufficient and more industrious to improve the Landlords ground ; so that they may honestly pay their Landlords their Rents ; and are very wary and cautious in making their Bargains, and will not accept of any Propositions, but such as they may have some reasonable profit for their industrious labour in culturing the same, and the enabling them to pay their Landlords Rent.

It will not be unnecessary to set some valuation on Lands as to their respective values, whether the same be purchased at Twenty years, so yeilding but five pounds *per annum* in the hundred ; or whether the same be purchased for more or less ; or whether the same be a Lease in being, as to the particular number of years to come in the same ? as suppose it to be ten pounds *per annum*, and two hundred pounds paid for the same, which is twenty years purchase, and you would sell a Lease of the same for five, ten, twenty or thirty years, whether the same be more or less, I shall give you a particular accompt thereof in the Table following.

A Table shewing the value that may be given for a Lease from one year to an hundred, for Ten pounds per annum, and the Land out of which the same doth issue being at twenty years Purchase, and so yielding five per cent. there being set down in the first line in the Margin, the quantity of years; and in the other, what may be given for the same.

	l. s. d.				l. s. d.		
Number of years to be purchased.	1	9	10 0	What may be given for 10 l. per ann. for what number of years.	17	112	15 0
	2	18	11 8		18	116	18 4
	3	27	4 2		19	120	17 6
	4	35	9 2		20	124	12 6
	5	43	5 2		21	128	4 2
	6	50	15 0		23	134	18 4
	7	57	17 6		25	140	19 2
	8	64	12 6		27	146	9 2
	9	71	1 8		29	151	8 4
	10	77	2 6		30	153	14 2
	11	83	1 8		31	156	0 0
	12	88	11 6		40	171	4 2
	13	93	19 8		50	182	10 10
	14	99	0 0		60	189	5 10
	15	103	16 8		80	195	19 2
	16	108	17 6		100	198	0 0

Let the Purchaser, if he lay out his Money on a Lease after this rate, be sure to make an abatement of all sorts of Taxes, and so reduce the same to a certain Rent, as if it were an Annuity or Rent-charge.

The use of the Table.

He may likewise observe if he be about to Purchase the Reversion after any number of years, what he may give for the same; or if he be to Purchase a term of years to commence after a certain term in being; As suppose it be a Lease of one and twenty years to commence after ten years, which make one and thirty years in all, the first ten years, according to this computation, being worth Seventy seven pounds two shillings and six pence, and the whole one and thirty years being valued at one hundred fifty and six pounds; so that if you deduct Seventy seven pounds two shillings and six pence, out of one hundred fifty and six pounds, the remainder will be seventy eight pounds Seventeen shillings and six pence.

Note, That if the thing about to be purchased be of any great or lesser value, the Purchaser may by this Table compute the same: As supposing it to be twelve pounds per annum for ten years, 'tis but dividing seventy seven pounds two shillings and six pence into five parts, and then adding the fifth part to the same, which is fifteen pounds eight shillings and six pence, and it is just ninety two pounds and eleven shillings; so that by adding and dividing the same, the value of any sum may be computed. I shall add two Tables more hereunto, for the easier valuation of any Land to be Purchased, if you have allowed you in your Purchase six or seven pound in the hundred per annum.

A Table shewing the valuation of 10. l. per annum, the Purchaser having allowed him after the rate of six pound in every hundred, and what may be given for any number of years, having allowance after that rate.

		l.	s.	d.			l.	s.	d.
Number of years to be purchased.	1	9	8	4	17	what may be given for 10 l. per ann. for what number of years.	104	15	10
	2	18	6	8	18		108	5	10
	3	26	15	0	19		111	11	8
	4	34	13	4	20		114	14	2
	5	42	2	6	21		117	12	6
	6	49	3	4	23		123	0	10
	7	55	16	8	25		129	0	0
	8	62	1	8	27		132	2	6
	9	68	0	0	29		135	18	4
	10	73	11	8	30		137	13	4
	11	78	17	6	31		139	5	10
	12	85	16	8	40		150	6	8
	13	88	10	10	50		157	5	0
	14	92	19	2	60		161	12	6
	15	97	2	0	80		165	1	8
	16	101	0	10	100		166	3	4

A Table shewing the valuation of 10 l. per annum, the Purchaser having allowed him after the rate of seven pound for every hundred, and what may be given for any number of years, having allowance after that rate.

		l.	s.	d.			l.	s.	d.
Number of years to be purchased.	1	9	6	8	Numbers of years to be purchased	17	97	12	6
	2	18	1	8		18	100	11	8
	3	26	5	0		19	103	6	8
	4	33	17	6		20	105	19	2
	5	41	0	0		21	108	6	8
	6	47	13	4		23	112	14	2
	7	53	17	6		25	116	10	10
	8	59	14	2		27	119	15	0
	9	65	3	4		29	122	15	10
	10	70	5	0		30	124	1	8
	11	75	0	0		31	125	6	8
	12	79	8	4		40	133	5	10
	13	83	11	8		50	137	16	8
	14	87	9	2		60	140	7	6
	15	91	1	8		80	142	4	2
	16	94	9	2		100	142	14	2

Note, by these three Tables you may find out the value of any Land, as to the Inheritance, or as to a Lease for any number of years to come, or as to any number of years to commence after the determination of any Term in being. As supposing the same to be valued at Nineteen, Eighteen, or Seventeen years Purchase, then you are between the computation of five and six pound for every year; or suppose it be valued at Fifteen or Sixteen years Purchase, then you are between the computation of six and seven pound for every year; so that

by adding or deducting you may make use of these Tables.

These two last Tables are to be used as the former Table of five *per cent*.

Leases for Lives.

A Lease for a single life is generally valued at seven years Purchase. The Purchaser ought to have regard to the health of the party for whose life the same is to be purchased; whether he be aged or sickly? if so, his life may be valued at five or six years purchase; or whether it be for the life of a Child, as to the age of the Child, and whether it be healthful or not; if so, it may be valued at five or six years purchase: whether the same be for the life of a Child-bearing woman, it may be valued at the same rate: or whether the same be for the life of a healthful man between Twenty and Forty? or for the life of a healthful woman past Child-bearing? or for a Barren womans life, who are for the most part longer lived; and such lives may be valued at Seven years purchase, or something more: or whether the same be for your own life or not? consider in which of these capacities you are, and so value the same accordingly. You may give something more for your own life than for anothers. If you purchase a life for seven years purchase, you have for every hundred pounds as you expend, Fourteen pounds, five shillings, and eight pence halfpenny every year. Let the Purchaser in purchasing Annuities for lives, take care that he have good security for the same, either out of Lands or otherways.

The Tables before prescribed and hereafter mentioned for purchasing Leases of Lands or Houses, may serve for the purchasing of Lives, whether the same be two, three, four, or more. I shall therefore describe the use of the

the same: As for example, supposing ten pound every year to be purchased for one life or more, having after the rate of seven pound in the hundred for your money for one life; which you may value as a Lease for ten years, which is seven years purchase, and comes to Seventy pounds five shillings. I shall therefore insert two Tables, shewing you what number of Lives may be of equal value to what number of years.

		l. s. d.				l. s. d.	
Number of Lives.	1	10	70	5	0	1	9
	2	19	103	6	8	2	17
	3	27	119	13	0	3	24
	4	34	129	18	0	4	30
	5	40	133	6	8	5	35
	6	45	135	10	0	6	39
	7	49	137	0	0	7	42
	8	52	137	17	0	8	44
	9	54	138	2	8	9	45
	10	55	138	5	2		
What they are worth in money having 7 l. per cent.		Number of years.		What they are worth in money having 7 l. per cent.		Number of years.	

Leases of Houses or Lands that are held from Bishops, Colledges, Dean and Chapter, Corporations, or from Companies, are for the most part valued at one years purchase more than Leases held from private persons; they being better Landlords, and will many times accept of a more reasonable composition for the renewing their Leases, than private persons will.

Purchasing of Copy-hold.

Let the Purchaser after his having taken an account of the quantity, quality, and worth of the thing, enquire whether the same be at Fine certain, or Fine Arbitrary, or at the will of the Lord: it being at Fine arbitrary,

may make it abate in the value one or two years purchase. The Lords and Stewards of some Mannors being very unreasonable in setting great Fines for their Tenants admittances.

In some Mannors there is a custome that they may set as much or more than the Land to be Surrendred is worth; which seems very unreasonable: but that which makes it a reasonable custome, is, that when such Tenant is admitted a Copy-holder of the said Mannor, he may purchase as much as he please, paying little or no Fine; so that if any one be about to purchase any considerable thing, he gets himself first admitted to some small parcel, and afterwards to the rest: so that all things considered, his Fine may be reasonable.

Copy-hold Land being well seated, and at a small Fine certain, may be valued at Sixteen, Seventeen, or eighteen years purchase. And if it be Arbitrary, then you may deduct so many years purchase as they usually take for their Tenants admittances; and so value the same accordingly, or otherwise give the Seller so much as it may be worth, and let him compound with the Lord of the Mannor, and get you admitted to the same. In some Mannors the Fines are all certain, and in others all Arbitrary; in others some certain and some Arbitrary. Let the Copy-holder that is at Fine certain, be sure that he pay the Fine certain, and have regard that he pay neither more nor less, and have the same inserted in his Copy; it being the trick and device of some Lords and their Stewards to reduce their Copy-holders Fines to uncertainties, that thereby time might wear out the certain custome of the same; and this done, they demand what they please for their Tenants admittances; which doth very much increase the value of any Mannor.

Note, That a Copy-hold Estate is one of the certainest Estates as to Title, in England.

Advowsons.

Advowsons some are appendent to Mannors, others in gross by themselves; let the Purchaser be very circumspect as to the Title of it, whether it be a usurpation from any Patron, so that the Patron may avoid the same by Writ of Right of Advowson, or *Quare impedit*; or whether the same be not forfeited by any Simoniackal Act done between the Patron and the present Incumbent? or whether the Church be not void at the time of the making such Contract? it being a rule in Law, that things in action cannot be granted. *Cook. sur. Lit. l. 2. Sect. 180.*

Before you proceed to value the same, you may make inquiry as to the Tythes of the same, and what the Glebe-Lands may be worth yearly? If you cannot well satisfy your self by the Inhabitants, you may repair to the Kings Books in the First-Fruits Office, and there search to find at what rate it is rated there: it being for the most part rated at 10 *l.* in the hundred for every hundred pounds, as the Tythes and Glebe are yearly worth. This Rule is not always true, but for the most part it is; so that if you find that the value in the Kings Books, and the enquiry that you do make do agree, it may be something of satisfaction to you, as to the valuation thereof. All these things considered, the common valuation of the perpetual Advowson, is two years purchase, be the same appendant to a Mannor, or in gross by it self. But if you purchase the next Presentation at the next avoidance of the Church, it is usually valued to be worth one years purchase.

Impropriations.

Impropriations or Appropriations, the Fee of which being now a Lay-inheritance, are of less value than Lands, for the scruple of Conscience which many men conceive of them, they being of ancient Right belonging to the Church, and taken from the Church by the * Act of Dissolution in K. Henry the Eighths time, and by Lay-men purchased from the Crown. The value of such Impropriations according to their scituation, may be rated at more or less years purchase: they lying near London, are valued at fourteen years purchase; and in remoter parts, at twelve or thirteen. Which you may compute by the Tables before and hereafter mentioned.

* Stat. 27 H. 8. 27. 27 H. 8. 28.

Note, that you must make deduction for the Fee-Farm rent to the Crown, and for maintenance of Cure.

That where the Owner of the Impropriation is Lord of the Mannor, and will make sale of them both together, there the Purchaser may give one years purchase more for the same, for the conveniency of letting the same Tythe-free to his Tenants.

Concerning

*Concerning the Purchasing of Leases of Lands
holden from Cathedral Churches or Col-
ledges.*

THe Deans and Chapters in Cathedrals, and the Heads and Fellows of Colledges in both Universities, in their letting of Leases and taking of Fines do account according to this Rate of compound Interest, viz. 11 l. 11 s. 8 d. 1 q. and 3 tenth parts of a farthing. And according to this Rate of Interest, are the two following Tables computed.

The

The first Table shews the present worth of One Pound or 20 s. for any number of years from 1 to 21.

The second Table shews the present worth of One Pound or 20 s. for any number of years expired under 21; by which may be known what Fine must be given to renew any Lease when any number of years are expired.

TABLE I.

	Years.	l. s. d. q.		
The present worth of One Pound or 20 s. for	1	0	18	00
	2	1	13	11 3
	3	2	8	4 3
	4	3	1	3 2
	5	3	12	11 1
	6	4	3	2 2
	7	4	12	6 0
	8	5	0	10 0
	9	5	8	3 3
	10	5	14	11 3
	11	6	0	11 3
	12	6	6	4 2
	13	6	11	2 0
	14	6	15	6 0
	15	6	19	4 2
	16	7	2	10 1
	17	7	5	11 2
	18	7	8	9 0
	19	7	11	3 0
	20	7	13	5 3
	21	7	15	6 0

TABLE II.

	Years.	l. s. d. q.		
The present worth of Year after.	1	20	0	2 00
	2	19	0	4 30
	3	18	0	6 90
	4	17	0	9 62
	5	16	0	12 73
	6	15	0	16 12
	7	14	1	0 00
	8	13	1	4 40
	9	12	1	9 40
	10	11	1	14 62
	11	10	2	0 60
	12	9	2	7 22
	13	8	2	14 80
	14	7	3	2 11 3
	15	6	3	12 32
	16	5	4	2 74
	17	4	4	14 22
	18	3	5	7 60
	19	2	6	1 60
	20	1	6	17 53

The Use of these Tables.

The use of these Tables will best be made plain by Examples; wherefore, let it be required to find

QUESTION I.

What is 53 l. a year to continue 13 years worth?

Look in the first column of the first Table for 13 years, and against it you shall finde 6 l. 11 s. 2 d. and so much is 1 l. or 20 s. a year to continue 13 years worth: Now 53 l. a year must be 53 times so much. Now

$$\begin{array}{r}
 \begin{array}{l} 53 \text{ times} \left\{ \begin{array}{l} 6 \text{ l.} \\ 11 \text{ s.} \\ 2 \text{ d.} \end{array} \right\} \text{ is } \left\{ \begin{array}{l} 318 \\ 29 \\ 0 \end{array} \right\} \begin{array}{l} \text{l.} \\ \text{s.} \\ \text{d.} \end{array} \begin{array}{l} q. \\ 0 \\ 0 \end{array} \end{array} \\
 \hline
 347 \quad 11 \quad 5 \quad 0
 \end{array}$$

So that a Lease of Church or Colledge Land of 55 l. a year for 13 years, will be valued at 347 l. 11 s. and 5 d.

And in the same manner you may finde that a Lease for 21 years, of 10 l. a year, will be valued at 77 l. 15 s.

QUESTION II.

What Fine must be given for a Lease of 16 l. a year for 9 years after 14 years expired?

This Question must be resolved by both Tables, but most easily by the Second;

First,

First, by the first Table.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
The present worth of 1 <i>l.</i> for 21 years is	7	15	6
The present worth of 1 <i>l.</i> for 14 years is	6	15	6
The difference is	1	0	0

The difference is 1 *l.* or 20 *s.* wherefore for the 7 years there must be given 16 *l.*

Secondly, by the Second Table.

If you look in the first Column of the Second Table for 7 years, against it you shall find 14 years, and against that 1 *l.* 0 *s.* 0 *d.* 0 *q.* Again,

QUESTION III.

*What is 10 *l.* a year for 4 years after 17 years are expired?*

Look in the Second Table for 4 years, against which you shall find 17 years, and against that, 0 *l.* 9 *s.* 6 *d.* 2 *q.* and so much is 20 *s.* a year worth; wherefore 10 *l.* must be 10 times so much, which is 4 *l.* 15 *s.* 5 *d.* And so much Fine must be given to make the Lease up 21 years after the expiration of 17 years.

Coal-Mines.

Having considered all those things which are before mentioned as to the Coal-Mines, and that you find by your Boring-rods that you have a good seam of Coals; and either a good In-land Market, or else the convenience of some River for the Exporting them: The next thing

thing to be considered is, whether the same be a Colliery that hath been formerly wrought, or whether it were never wrought before, so that all Materials working the same, are to be new bought and made.

If it be a new Colliery that is either on the River *Tine* which runs by *New-Castle*, or on the River *Ware* which runs by *Sunderland*, although it hath been formerly wrought, and there doth yet remain great quantities of Coales in the earth, you may consider what Stayths or Wharffs there be upon the River, for the loading the Coales unto, and whether they be in repair; and to consider what quantities of Pits there be sunk ready for use; how many Horse-Engines for drawing up the Coals out of the Pits, and what Engines they use to draw their Water with for the conveniencie of their working; whether they make use of Water in any River, and so draw Water with Water, or whether they draw Water with Buckets, or Hand-Pumps, or Chain-Pumps; or whether they make use of Tread Wheels, or Horse Wheels, or what other device they have, there being very many devices for that purpose, but very few good for any thing. In most Collieries in the North they make use of Chain-Pumps, and do force the same either by Horse Wheels, Tread Wheels, or by Water Wheels; and this they find the surest way for the drawing their Water, although the charge of such Wheels, for Timber, Leathers, Chains, Pumps, and other materials about the same, is very great, and often requires repairing, besides the great charge of men and horses they are daily at, and are forced sometime to repeat their Work. Let the charge be what it will, it is not much matter, so that the profit do exceed the same. All the materials before mentioned are valued by themselves; and if the Colliery be likely to be of twenty years work, you may value the same at three or four years purchase. If the same hath been formerly wrought, you may find how many Chaldron of Coles there hath been in any particular year wrought out of the

the same, by the Staiths-mens accompts, or by *New-Castle* or *Sunderland* Custom-house-Books, they taking every Tide the number of Chaldron of Coles which comes from every Colliery: so by computing the charge of procuring the same, you may find what quantity of Coles there hath been wrought out of the same in any year, and so be able to estimate the profit of the same. The purchasing the Fee of Collieries is very rare, unless it be with the Land where the same is: But the most usual way is either to give a Fine, and so pay a certain rent, or a certain rent out of every Chaldron without any Fine. The Purchaser may give more or less for the same, according as he may see his advantage. They commonly reckon that two or three years purchase may be a competent allowance either for the Fee, or for a long Lease, rendring a small rent, or one shilling for every Chaldron, or more or less, as the charge of working the said Colliery may be, and as the profit may arise thereby.

It hath been often observed that South-Country men do very seldome get any thing but trouble by undertakings in Collieries, it being the nature of many North-Country men to have a kind of Antipathy against the thriving of any but themselves. As to a Colliery that hath never been wrought, it is very hard to set a valuation upon the same, the generality of Collieries being worth little or nothing.

There are divers other sorts of Collieries in Inland Countries in *England*, whose profit consists in an Inland Market; and they do produce in many places great profit to the Undertakers, but are as uncertain as others, and subject to the casualties of Water, and of Fire, which many times proceeds from their not making a convenient Shaft for the Air in their working the same.

There

There are many Projectors (who have more of fancy and imagination in their Designs, than of any real operation) that do undertake even impossibilities in the draining these and other sort of Mines; being many times such as the Owners value at little or nothing, either because of the small body of Coal, or by reason of the depth and charge of sinking such Pits, and in Timbring of them; or by reason that the Mines are either fed with some River, or great Springs, so that the working of them will not quit their cost: such Pits or Mines as these, they very much applaud and commend to the Projectors, by informing them what great profit would arise if such Obstacles as they are troubled with were removed; which prompts the Projectors to go forward with their designs, not questioning but to remove all obstacles that hinder the same, until at length by sad experience they find, that instead of draining the Water, their Pockets are drained.

Lead-Mines.

Lead-Mines by the Custom of the Peak in *Derbyshire*, a particular part doth belong to any man that doth first find out the same; and after he hath taken his possession, which is by driving a cross Stake in the Earth, he having made election of so much as he may by the Custom, whether the same be a Meer of ground, which is about 29 yards, or half a Meer, or what he pleases, and may lawfully be demanded by the Custom; they term him the First Founder; then such others who will have any part undisposed (as they may by the Custom demand) they likewise take possession by a cross Stake. Every person concerned having taken their respective possessions, and their respective shares being known to the Bar-Master, they then proceed to sink their shafts, and so to get the Oar; which the Bar-Master doth observe that they do
equally

equally divide the same according to their respective shares; the King having every thirteenth dish of Oar for his Lot and Cope; and the Minister, it may be, every twentieth for Tythes. There be divers peculiar Customs that belong to these Mines, which do require a diligent search into, by such as do deal with the same, so that he may take care that he lose not his share or part upon any nicety: as, if he doth let the same be unwrought fourteen dayes together, and may well work the same without the impediment of Water, or any other lawful impediment, he hath forfeited the same to such person that will come and take possession thereof. There be divers other Customs which must be observed, or else the Proprietor may forfeit his Estate.

There doth a Jury belong to these Mines of Twelve men, that do view the Groves and Mines, and doth observe that every one doth fairly work his own part, and not encroach upon anothers: and several other things they enquire after: they have some good, and some bad Customs amongst them, as well as in other places. They have likewise a peculiar Court, by which they decide most differences touching the Mines; which is no Court of Record, which occasions the same to be very corrupt, as to mens Testimonies. The Grovers and Miners, upon whose evidence mens estates do depend, well knowing they cannot be perjured; the Custom of false Testimony and Lying having removed from them the thoughts of the hainousness of the same. These Miners are much given to flattery and deceit, although they be of a brutish nature and behaviour.

In many places of *England* and *Wales*, where there are these sorts of Mines, they do not altogether depend upon such Customs; but in many places they do belong to the Proprietors of the ground, which makes them more valuable, if they be rich Veins or Seams of Oar, and free from great quantities of Water. They

They use several sorts of divices, and such as are used in Collieries for the dreining their Mines; but that which is most used amongst them is a Sough, they lying for the most part in Hills.

To set a certain value on any of these Mines, being generally great uncertainties, it will be very erroneous and imperfect: but some will give (where the same is indifferent good Oar, and the seam like to be of any continuance, and hath yielded good profit, and is not then impeded by Water) as much as it hath yielded in one or two years, or more, according as they may see their adventure. Those which buy at any rate, do sometimes return their money twenty times over; and at other times lose all their purchase-money, and as much more, they being very great uncertainties, and something depending upon the ingenuity and contrivance of the Proprietors in managing the same.

These Mines are sometimes let by Lease, paying a certain Rent, or that which is equivalent; but for the most part they sell the Fee of the same: the Wife may have Dower of these Mines as well as of Land, and they do descend to the heirs of the Possessor, and are not much different in many of their Customs from Estates of Land in Fee-simple.

Tin-Mines.

There will be no need to speak any thing as to the value and Customs of Tin-Mines, they being subject to such Casualties as are before mentioned to Coal and Lead, to which I refer you; and may be accounted to be of the same value, or so many years purchase; and have many Customs belonging to the same, and such as do belong to Lead and Coal-Mines.

Mills.

All sorts of Mills, whether Wind-mills, or Water-mills, for what use or kind soever, Forges, Furnaces, Ful-ling-mills, or what ere they be, being subject to such Casualties as are before mentioned, and out of Lease, they may be valued at ten or eleven years purchase; but if they be in Lease, and the Miller to repair the same, they may be valued at one or two years purchase more. To compute both which valuations for any number of years, and how much you have *per cent.* every year for your money, I refer you either to the Tables before mentioned for the purchasing of Land, or hereafter mentioned for the purchasing of Houses.

Of Woods, Underwoods, Copice, &c.

In the Purchasing or taking of Leases of Land, the Purchaser ought to have a regard to what Wood, Underwood or Copices be upon the same; also to see of what Growth such Wood or Copice is; whether it hath been lately felled, and so will yield no profit in some considerable time, or whether it be of good growth, and so may suddenly be felled, and return to a good profit. Likewise let the nature of the Wood be considered, whether it be Oak, Elm, Beech, Alder, &c. and value it according to the nature of the same, and the profit that may be made of it upon the place. Let enquiry also be made whether there be not any reserve to issue gratis out of the same, as to maintain the Gating, Paling, Railing, &c. of any Park, Warren, or the like, within the Mannor where such Wood lyeth; Or whether there be not a due issuing out of the same in so many certain years to the King, to be felled for Shipping. In fine, let him be
ascertained

ascertained whether he taketh his Woody part according to Woodland-Measure (which is 18 foot to the Rod, Pole, or Perch) or by Statute-Measure of 16 foot and a half to the Perch : for in this there is a very considerable difference ; for every Eleven Acres of Woodland-Measure will be 12 Acres of Statute-Measure : nay, and in some places (according to the custome of the Country) there is allowed 18, 20, and 24 foot to the Pole or Perch. All these things being considered, the Purchaser may by the former Tables compute at what Rate of Interest he may lay out his Money : And when he hath done all, let him mind the counsel which a friend gave to a Countrey-man intending to Purchase :

—— if possible you can,
Be sure you bargain with an honest man.

Valuation of Ground for making of Brick.

Ground near *London*, that hath a good Clay 3 or 4 foot deep, is very valuable for the making Brick. It may be accompted that a yard of Earth square will make seven or eight hundred of Bricks. If the owner of the Ground will not make Bricks himself, and so take all the trouble and profit, he may let the same for a certain Rent to be paid out of every thousand : he may account that he may have a thousand of Bricks made, and ready for use, all charges for Workmanship in fitting the Earth, Sand, Straw, making, turning, and burning, at seven shillings six pence, or eight shillings a thousand : he may add three shillings for the carriage of every thousand to the place where the same are to be used ; which carriage is either more or less, according to the distance of the place : the seven shillings six pence for making, being

added to the three shillings for carriage, amounts unto ten shillings and six pence; so that if the Bricks yield thirteen or fourteen shillings a thousand, there is two shillings and six pence, or three shillings and six pence profit in every thousand for the Ground, and so if more or less.

The Proprietor may afford the Undertaker a moiety of the profit at least, and so may set a certain Rent, which may be one or two shillings in a thousand, or more or less, according to the goodness and fineness of the Clay, and the Ground lying convenient.

A Computation of Houses in England, and particularly in London; and how to compute the value of Ground whereon Houses stood before the late Fire.

YOU may consider what casualties the Houses to be purchased are subject unto, as unto the Air, extraordinary Winds and Tempests; Rain, although but small showers, by degrees rot the same. And in some places extraordinary floods and inundations, which do sometimes utterly destroy them: but the greatest casualty is that of fire, which doth happen many wayes.

Another thing to be considered is, whether there be any Tenant in the same? which if there be not, it may be accounted one years purchase the less in its value. Houses being without Tenants, decay sooner than those which are Tenanted. Houses of what kind soever, require great cost in repairing. Houses in many places of *England*, are accounted to be worth ten, eleven, and twelve years purchase; but Houses in *London*, in some places, are esteemed to be worth thirteen, fourteen, fifteen, sixteen,

teen, or sixteen years purchase. The cause of such valuations I shall shew you.

Some Houses near *London*, and in other places, that were built more for pleasure than profit, do very seldom yield the Owner or Builder above four, five, or six pounds *per cent.* when they Let or Lease the same; the Tenant that takes them not regarding what they cost building, but what it is reasonably worth *per ann.* And if any Purchaser is to buy the same, he will have allowed him after the rate of eight, nine, or ten *per cent. per ann.* for his money, or more or less, as it may be valuable.

Monied men that do build in the Countrey, have many times more regard to lay out their money to promote their own peculiar fancy and pleasure than their profit; which fancy and pleasure doth very seldom visibly correspond with the Purchasers humor, but the Owners best way is to find out a Chapman with whom it may: whereas Houses in *London*, some yield ten, twelve, fifteen, or it may be twenty pound for every hundred laid out in building, and are valued at twelve, fourteen, or sixteen years purchase.

Houses that were, and (by the permission of God) will be again in *Cheapside, Fleetstreet, Cornhill*, and in other high and principal Streets, and in some Streets and Lanes of note, were for the most part valued at fifteen or sixteen years purchase: the ground on which the same stood, being not subject to such casualties as the Houses; and it may be the Ground-rent of such Houses was worth and would yield half the Rent or more.

Suppose a House that was standing before the late Fire in *Cheapside*, and worth an hundred pounds *per ann.* and

would yield fifteen hundred pounds, if the same was to be sold, and now to be re-built will cost five hundred pounds, to make it of the same value : You may reckon the Ground-Rent of this House to be worth a thousand pounds, which is twenty years purchase for fifty pounds *per ann.* and the Building upon the same, allowing ten pound in every hundred, worth fifty pound *per ann.* more; so that the Ground-Rent and the Building together, amount unto one hundred pounds *per an.* and are worth fifteen hundred pounds to be sold: which makes it plain, that such improvement is not altogether occasioned by vertue of the building, but principally by the scituation of the ground; so that fifty pounds *per ann.* is but a reasonable Ground-rent for a House that will cost five hundred pounds the re-building, and yield one hundred pounds *per annum* when built;

Houses that are of the same Rent, and in as good repair, in other places, it may be will not yield above eleven or twelve years purchase, the reason being directly the same as to the value of the ground. Suppose an hundred pound *per ann.* for a House in the *Strand*, and this House if it was rebuilt would cost eight hundred and fifty pounds; so that if you allow ten pounds in the hundred every year for the money expended in the rebuilding, it comes to eighty five pounds *per ann.* and the Ground-rent for the same worth but fifteen pounds *per ann.* which at 20 years purchase comes to three hundred pounds: which being added to the eight hundred and fifty pounds, amounts to one thousand one hundred and fifty pounds, and is worth so much to the Purchaser; which is between eleven and twelve years purchase.

I onely set these Examples for Demonstration, to shew how any man may value his ground, either for to build himself, or to let the same out at a Ground-Rent for another

another to build on the same; and to know how to value his Ground, if he hath a mind to sell or Lease out the same.

How to value Ground by the Foot, Front, or Square.

There is a way as some use for the valuing their ground by the Foot, which comes under the same reason as in the Example before mentioned, of a House in *Cheapside*. Suppose that same be 25 foot Front, and forty foot deep, it may be let for to be built for forty shillings the foot Front, which amounts unto fifty pounds per annum; or if you would let it by the square Foot, there being a thousand Foot square, it is worth twelve pence a Foot per ann. which amounts unto the same reckoning of 50 *l. per ann.* so that when you are satisfied of the charge of the Building, and of the value when built, you may compute it by the Foot, or in Gros, how you please.

Let those who have any Ground to rebuild, first consider what their House was worth before it was burnt, and what was the cause of the value, whether the long continuance of any Trade in the same, or whether it be so well situated as that it may be fit for any Tradesman; and then consider whether it will be of the same value again when re-built, and of what value it may in probability be, and what it will cost to rebuild the same. These things considered, and finding that there will be an allowance of eight, nine, or ten pounds in every hundred pounds expended, the Proprietor may proceed to re-build the same.

Note, That eight, nine, or ten pounds per cent. to be allowed

lowed to the Builder, may be a good sufficient allowance, for his money to be expended, considering the number of years he hath in the same; as, from thirty to forty years, about ten pounds in every hundred pound; from forty to fifty, about nine pounds in every hundred pound; and from fifty to sixty years, and so upwards, about eight pound in the hundred per annum, or eight and a half. I shall here set down three Tables more for the use of the Purchaser, after the same form as the other, computing what value ten pounds per ann. whether issuing out of Lands or Houses, may be worth for any number of years, the Purchaser having after the rate of eight, nine, or ten per cent.

A Table shewing the valuation of 10*l.* per annum, the Purchaser having allowed after the rate of eight pound for every hundred; and what may be given for any number of years, having allowance after that rate.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
1	9	5	0
2	17	16	8
3	25	15	0
4	33	2	6
5	39	18	4
6	45	4	2
7	52	0	10
8	57	9	2
9	62	9	2
10	67	1	8
11	71	7	6
12	75	6	8
13	79	0	10
14	82	8	4
15	85	11	8
16	88	10	0

What may be given for 10 *l.* per an. and for what number of years.

Number of years to be purchased.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
17	91	4	2
18	93	14	2
19	96	0	10
20	98	3	4
21	100	3	4
23	103	14	2
25	106	15	0
27	109	7	6
29	111	11	8
30	112	11	8
31	113	10	0
40	119	5	0
50	122	6	8
60	123	15	0
80	124	15	0
100	124	19	2

What may be given for 10 *l.* per an. and for what number of years.

Number of years to be Purchased

A Table shewing the valuation of 10 l. per annum, the Purchaser having allowed him after the rate of nine pound in every hundred; and what may be given for any number of years, having allowance after that rate.

	l.	s.	d.		l.	s.	d.
1	9	3	4	17	85	9	2
2	17	11	8	18	87	10	10
3	25	6	8	19	89	10	0
4	32	7	6	20	91	5	10
5	38	17	6	21	92	18	4
6	44	17	6	23	95	15	10
7	50	6	8	25	98	5	0
8	55	6	8	27	100	5	0
9	59	19	2	29	102	0	0
10	64	3	4	30	102	15	0
11	68	0	10	31	103	8	4
12	71	11	8	40	107	11	8
13	74	17	6	50	109	12	6
14	77	17	6	60	110	8	4
15	80	12	6	80	111	0	0
16	83	2	6	100	111	1	8

Number of years to be purchased.

What may be given for 10 l. per ann. and for what number of years.

Number of years to be purchased

What may be given for 10 l. per ann. and for what number of years.

A Table shewing the value of 10 l. per annum, the Purchaser having allowed him after the rate of 10 l. per cent. and what may be given for any number of years, having allowance after that rate.

	l.	s.	d.		l.	s.	d.
1	9	1	8	17	80	4	2
2	17	6	8	18	82	0	0
3	24	6	8	19	83	12	6
4	31	13	4	20	85	2	6
5	37	17	6	21	86	9	2
6	43	10	10	23	88	15	10
7	48	13	4	25	90	15	0
8	53	6	8	27	92	6	8
9	57	10	10	29	93	13	4
10	61	8	4	30	94	5	0
11	64	17	6	31	94	15	10
21	68	2	6	40	97	15	10
31	71	0	0	50	99	3	4
41	73	13	4	60	99	13	4
51	76	0	10	80	99	19	2
61	78	4	2	100	100	0	0

What may be given for 10 l. per ann. and for what number of years.

Number of years to be Purchased.

To the foregoing Tables of 8, 9, 10 l. per cent. per annum, at 10 l. a year, I shall here add another Table at the same Rates of Interest, shewing what any purchase for any number of years, and at any Rent whatsoever, any Lease may be worth in present Money.

Four Tables, shewing how many Years, Months and Weeks Purchase the Lease of any Land or Houses is worth, Calculated to four several Rates of Interest, viz. at V. VI. VIII. and X. per Cent. per Annum.

The value of the Purchase, in Years, Quarters, and Weeks, at these Rates, viz.															
V. p. Cen.				VI. p. C.				VIII. p. C.				X. p. C.			
Years	Years	Quarters	Weeks	Years	Years	Quarters	Weeks	Years	Years	Quarters	Weeks	Years	Years	Quarters	Weeks
1	0	3	7	1	0	3	5	1	0	3	4	1	0	3	3
2	1	3	4	2	1	3	3	2	1	3	1	2	1	3	0
3	2	3	0	3	2	2	0	3	2	2	4	3	2	2	9
4	3	2	4	4	3	2	0	4	3	1	4	4	3	0	1
5	4	1	4	5	4	1	0	5	4	0	1	5	3	3	0
6	5	0	4	6	4	0	0	6	4	2	4	6	4	3	5
7	5	3	1	7	5	2	4	7	5	0	9	7	4	3	9
8	6	2	0	8	6	0	0	8	5	3	0	8	5	1	4
9	7	0	4	9	6	3	3	9	6	1	0	9	5	3	0
10	7	3	1	10	7	1	4	10	6	3	1	10	6	0	9
11	8	1	4	11	7	3	9	11	7	0	9	11	6	2	2
12	8	3	6	12	8	1	6	12	7	1	0	12	6	3	2
13	9	1	9	13	8	3	4	13	7	3	9	13	7	0	4
14	9	2	4	14	9	1	1	14	8	0	0	14	6	1	0
15	10	1	8	15	9	3	0	15	8	1	4	15	7	2	4
16	10	3	0	16	10	0	6	16	8	3	10	16	7	3	2
17	11	1	0	17	10	2	0	17	9	0	5	17	8	0	0
18	11	2	4	18	10	3	2	18	9	1	0	18	8	0	8
19	12	0	4	19	11	0	9	19	9	2	4	19	8	1	4
20	12	1	6	20	11	1	10	20	9	3	1	20	8	2	0
21	12	3	4	21	11	3	0	21	10	0	0	21	8	2	9
22	13	0	2	22	12	0	1	22	10	0	9	22	8	3	9
23	13	1	0	23	12	1	4	23	10	1	4	23	8	3	9
24	13	2	8	24	12	2	2	24	10	2	0	24	9	0	0
25	14	0	4	25	12	3	0	25	10	2	8	25	9	0	4
26	14	1	2	26	13	0	0	26	10	3	2	26	9	0	8
27	14	2	8	27	13	1	0	27	10	3	9	27	9	1	0
28	14	3	9	28	13	0	2	28	11	0	2	28	9	1	2
29	15	0	9	29	13	2	4	29	11	0	8	29	9	1	4
30	15	1	7	30	13	3	1	30	11	1	0	30	9	1	7
31	15	2	4	31	13	3	10	31	11	1	4	31	9	2	0
41	17	0	5	41	15	0	4	41	11	3	9	41	9	3	0
51	18	1	0	51	15	3	0	51	12	1	0	51	9	3	6
61	18	3	8	61	16	0	9	61	12	1	4	61	9	3	8
71	19	1	4	71	16	2	10	71	12	1	8	71	9	3	11
81	19	2	4	81	16	2	4	81	12	2	0	81	10	0	0
91	19	3	1	91	16	2	4	91	12	2	1	91	10	0	1
Fee S.	20	0	0	Fee S.	16	2	8	Fee S.	12	2	2	Fee S.	10	0	2

The description of the Table.

The Table consisteth of four Parts; the first is calculated to the Rate of Five per cent. the Second at Six per cent. the Third at Eight per cent. and the Fourth at 10 per cent. In the first Column of each of them you have the Number of years to be purchased from 1 year to 100. In the next Column you have how many Years, Quarters, and Weeks, any thing for so many years is worth, let the Rent be great or small.

Example I.

What is an Annuity, Lease, Rent, or Pension, of 20 l. a year, and to continue 17 years, worth in ready Money, at 5, 6, 8, and 10 l. per cent. per annum?

Look in the first Column of the Table for 17 years, and right against 17 in the Table of

		Y.	Q.	W.
V per cent.	} you shall finde	11	1	0
VI per cent.		10	2	0
VIII per cent.		9	0	5
X per cent.		8	0	0

And so many Years, Quarters, and Weeks Rent will the Purchase be worth. So that the Rent being 20 l. a year,

		l.	s.	d.			
11 Y. and 1 Q.	} will come to	225	0	0	} at	Five	} per cent.
10 Y. and 2 Q.		210	0	0		Six	
9 Y. and 5 W.		181	18	6		Eight	
8 years.		160	0	0		Ten	

And the like may be done for any other number of years, and for any other Rent.

Example:

Example 2.

If a man should purchase any thing for 18 years, and give for the same 9 years and a Quarters Purchase, What Rate of Interest hath the party for his money?

Look in the Tables for 18 years in the first Column, and look along that line till you find 9 Years, 1 Quarter, which you shall find in the Third Table, under the Rate of VIII *per cent.* and that is the Rate of Interest (or Profit) which the Purchaser hath for laying out his money.

Rules which may be applied to the differences arising between Landlord and Tenant, by reason of the late Fire; whereby the Proprietors concerned may end their differences without giving trouble to the most Honorable Court of Judicature.

It may be supposed reasonable that such Tenants who are bound by Deed or Law to uphold and maintain their houses, &c. and so to leave them at the expiration of their Term, ought in some measure to be contributors to the charge of rebuilding, and not those who are Tenants at Will or sufferance: And that it is against Equity for Landlords to demand full satisfaction or half Satisfaction for the Tenants Covenants, it being a common calamity much damaging the Tenants Trades and Goods, as well as the Landlords Houses; which in equity and good conscience ought to be considered.

Rigorem Juris emollit Æquitas.

Let

Let it therefore be supposed reasonable that a sixth part of the charge of rebuilding to be born by the Tenant to be satisfactory for his Covenant, whether he build or surrender the residue of the charge of rebuilding to be born by the Landlord, Tenant, or Sub-Tenant, or if there be more Under-tenants, according to their respective Estates and Interests.

Example the First.

Suppose a House in an indifferent Street or Lane, the Landlord having Leased the same for 21 years, reserving 30 *l. per annum* Rent, whereof 11 years is expired; the Tenant having by his Fine, repairs, or rebuilding, improved the same to be of the value of 50 *l. per annum*.

You may compute the Tenants Interest of 20 *l. per annum* by the Table of 10 *l.* in the hundred, and for ten years it is worth

	<i>l.</i>	<i>s.</i>	<i>d.</i>
	122	16	8

The Landlords Interest of 30 *l. per ann.* by the Table of 8 *l.* in the hundred, it being better secured than the 20 *l. per annum*.

375	00	0
-----	----	---

The Landlords Reversion of 20 *l. per annum*, after 10 years, being computed by the Table of 10 *per cent.* is worth

079	03	4
-----	----	---

House worth before the Fire in all

577	00	0
-----	----	---

The Building you may suppose (to make it of the same value) to cost

300	00	0
-----	----	---

The Tenant to pay for his Covenant

050	00	0
-----	----	---

The rest will be 250 *l.* to be paid by the Landlord and Tenant according to their Interests.

The Tenants interest is 72 *l.* 16 *s.* 8 *d.* out of which he must bear his proportion of loss.

The Landlords interest is 452 *l.* 3 *s.* 4 *d.* which is six times as much as the Tenants interest, and about a third more; so that he must bear six times as much as the Tenant, and a third more.

So

So that the charge of two hundred and fifty pounds being divided into twenty two parts, the Tenant must bear three parts, and the Landlord nineteen, falls thus :

The Tenants proportion

34 01 10

The Landlords

215 18 2

300 00 0

If the Tenant build, and have Forty years added to his Lease, and continue the old Rent;

Twenty pounds *per annum*, for 40 years after 10, is worth by the Table of 10 in the hundred 75 *l.* 10 *s.* 6*d.* that the Landlord is to pay 140 *l.* 8 *s.* 2 *d.* and the Tenant the remainder, which is 159 *l.* 11 *s.* 10 *d.*

The Landlord may bear his proportion by abatement of Rent out of his 30 *l.* *per annum*, or otherways.

Tenant Surrender.

If the Tenant is not able to build, or willing to surrender his Lease, what shall the Landlord do in this case ?

The Tenant having out of his interest in *l.* *s.* *d.*
the estate, which is before supposed to be 122 16 8

Allowed for his Covenant 050 00 0

For building according to his proportion, 034 01 10

The remainder to be paid to the Tenant by the Landlord, is

038 14 10

122 16 8

Example the Second.

Suppose a Landlord let a Lease of a House for 40 years, reserving 38 *l.* *per annum* Rent to himself, the Tenant by Fine or Building hath improved the same to 60 *l.* *per*

per annum, and hath Leased the same to an Under-Tenant, of which term there is 15 years expired, what must the Landlords and Tenants proportions be in this case?

The Landlords Estate of 38 <i>l. per annum</i> , computed by the Table of 8 <i>per cent.</i> which is worth, being so well secured	l. s. d. 475 0 0
--	---------------------

The Landlords interest of 22 <i>l. per annum</i> , after the expiration of 25 years, being computed by the Table of 10 <i>per cent.</i>	l. s. d. 20 7 0
---	--------------------

Landlords interest in all	495 7 0
---------------------------	---------

The Tenants interest of 22 <i>l. per annum</i> for 25 years, being computed by the Table of 10 <i>l. per cent.</i>	l. s. d. 199 13 0
--	----------------------

The Sub-Tenants interest, being at a Rack-rent, is worth	000 00 00
---	-----------

House worth in all before the Fire	695 00 00
------------------------------------	-----------

The house, to make it of the same value, will cost 360 *l.* rebuilding: the persons concerned may bear their proportions as followeth.

The Sub-tenant to surrender, and to pay a sixth part in lieu of his Covenant, which is	l. s. d. 60 00 00
--	----------------------

The 300 pound residue of the charge to be born by the Landlord and other Tenant, according to their respective Interests, will fall out thus; the charge being divided into seven parts, the Landlord to bear five, and the Tenant the other two parts.

The Landlords five parts of the 300 <i>l.</i> towards the rebuilding, amounts unto	l. s. d. 214 5 9
---	---------------------

The Tenant for his two parts	85 14 3
------------------------------	---------

360 00 00

The

The Landlord may enlarge the Tenants term of 25 years to 40, for which the Tenant may deduct out of the Landlords proportion of building, so much as 22 *l. per annum* is worth for 15 years after 25, which being computed by the Table of 10 *per cent.* is worth 15 *l. 8 s. 0 d.*

If the Tenant will surrender his interest in the 22 *l. per annum* for 25 years, the Landlord having allowed him 60 *l.* by the Sub-Tenant in consideration of his Covenant, and 85 *l. 14 s. and 3 d.* by the other Tenant, according to his proportion in the loss.

The 113 *l. 18 s. 9 d.* remainder of the aforesaid 199 *l. 13 s. 0 d.* may be reasonable for the Landlord to pay to his Tenant in case he surrender.

As to the right stating of every of these Cases, it is requisite that these Questions be first resolved.

First, What term the Tenant hath, as 25 years.

Secondly, What Rent he payes, as 38 *l. per annum.*

Thirdly, What the full yearly value the house was before the fire, and will be again in probability when built, 60 *l. per annum.*

Fourthly, What the building will cost ? 360 *l.*

Then you may proceed to value the Landlords and Tenants interest by the Tables before mentioned, as you may observe by the foregoing discourse.

Tenant for Life.

In case there is a Tenant for Life, and he Landlord, then he and the Reversioner may value their estates together, and the Tenant for life may value his estate at 5, 6, or 7 years Purchase, and the Reversioner at the residue according as their estates may be worth, and so bear their proportions. If more lives than one, you may compute them by the Table of lives.

Houses

Houses, as hath been before observed (although they may be of the same rent) are not of the same value; which is occasioned by the situation of the house, and convenience for Trade; as an old house in a By-lane (although at the same rent) is not to be compared with a house in Cheap-side, nor to be valued at so many years Purchase.

The best sort of houses in a high and principal street, the proprietors interest may be computed by the Tables of 7 or 8 per cent.

The Streets and Lanes of Note by the Tables for 5, 6, and 7. per cent. according as they may be valued for Trade, &c. are fol. 16, 18, 19.

The worser sort of buildings by the Tables of 9 and 10 per cent.

A Ground-rent, Rent-charge, or such like, by the Tables of 5 and 6 per cent.

Example the Third.

Where *A.* letteth ground to *B.* to build at 10 per annum Rent, *B.* builds, and makes the same worth besides the Rent 40 *l. per annum.* *B.* Leaseth the same to *C.* who makes the same worth 31 *l. per annum* more.

A. his Interest 10 *l. per annum*, may be valued by the Table of 5 per cent.

B.'s Interest of 40 *l. per ann.* by the Table of 8 per cent.

C.'s Interest of 30 *l. per ann.* by the Table of 10 per cent.

So that it is plain, the charge of the building being known, and the value of every mans interest (if there be twenty concerned) being found by the six Tables before mentioned, the Sub-Tenant having paid a sixth part for his Covenant, the residue to be born according to the Landlords and Tenants respective Interest, follows a course.

Leases held from Corporations.

Leases held from the City, Halls, Colledges, Hospitals, Bishops, Dean and Chapters, and such like, have for the most part small Rents reserved on them: so that you may observe by the computations before mentioned, that the smaller the estate is, either of Landlord or Tenant, so much the lesser will their proportions be in the charge of rebuilding; so that in most such cases, where the Rent is small, the Landlord may bear his full proportion by enlargement of the Tenants Term; without abatement of any Rent, or enlargement of term, may be reasonable in case the Landlord have a great Rent reserved.

Where the Landlords Rent appears to be a Ground-rent, it may be valued as in the foregoing Chapter.

Two Months Rent.

As for the two Moneths Rent from *Midsummer* to the Fire, it is but reasonable that the Tenant should make allowance for it one way or other.

In such cases where the Builder cannot have his Title or Argreement confirmed to him by his Landlord, being an Infant, Bishop, Dean and Chapter, who are disable'd to make any Lease above 40 years, or in other cases.

In such cases it is convenient for the Tenant or Builder to have his Lease or term ratified by the Honorable Court of Judicature.

To find the true value of any house when built, is to consider what rate houses in good repair did yeild in the
same

same place before the late Fire, and not to compare them with such houses that had their valuation from the reputation of any Trade. If it was before the Fire an old house, and would yield to be let to most sorts of Trades 40*l.* *per annum*, it is but reason to suppose that a new house may do the same. Some ground for building of houses will be much bettered, being in Alleys, and now made Lanes; others being narrow, and now made wider: which things ought to be regarded, as to their valuation when rebuilt.

If the house to be built in a High Street or Lane of Note be of the dimensions of any houses hereafter computed, you may either make use of the same computations, or compute them by the rules there mentioned, they being computed at the most probable rate as materials are supposed to be at, during the building of the City: the computations following are supposing all materials new, and making the same Tenantable; and the materials as the buildings are disposed to be built with, are of the best sort.

The builder hath allowed him by virtue of these computations 10 *l.* in every 100 *l.* as he is to expend in building; which is a good improvement of his money, and so a good encouragement to build.

The Builder may add to the computations hereafter mentioned 5 *l.* in every 100 *l.* for the hazard the Builder runs in the proof of his building, and for several small petty expences incident to the same; as the Money expended in meetings, making contracts, and given to Workmen for Morning-draughts, and such like expences, although but small in themselves, yet many of them amount unto a Sum.

The Builder may have allowed him one year for his
E 3 build-

building before he pay any Rent, or more, as the place may be scituate from the buildings that are standing, and the place convenient for Trade.

Where there is a Tenant that is a poor man, and the Landlord know him to be so, and that he is not able to give the Landlord satisfaction for his Covenant; in such case the Landlord would do well to accept of his Lease, and discharge him of his Covenant.

ADVICE



ADVICE TO THE CITY-BUILDER.

The Second Book.

First, let him get his foundation cleared, and his Bricks and Bars laid up against there be use for the same, or else let them be wrought up in the Foundation; let him likewise get all his Rubbish sifted and cleansed, and to take notice what quantity there be of the same, and so value the same according as direction is hereafter given; let him observe that he doth deal with honest workmen, as near as he can, and such as are able and willing to perform what they shall undertake, whether the same be by the great or otherwise; And let him make choice of such a Master-Workman as will set his helping hand to set the work forward; such a Workman will afford to do his work cheaper than others who walk with their Rules by their sides, and it doth very much discourage those from idleness who work under him.

In case where Carpenters, Bricklayers, Labourers, or other Artificers, having undertaken work by the Great, Moneth, Week, or otherwise, do depart their work

without just cause, as the not payment of wages, or the like, the party grieved may have such Offender before two Justices of Peace, who have power by virtue of the Statute of Labourers, made 5. *Eliz.* 4. to Imprison such Offender for the space of one Moneth without bail, and such Offender doth forfeit 5 *l.* for every such Offence; the person grieved having, notwithstanding such punishment, his losses and dammages to be recovered at the Common Law for his loss sustained. The builder hath likewise a provision made against such Offenders by the late Act for rebuilding the City.

Let him observe that his materials be good, so as to make substantial work, and that his bricks be well burnt, which he may know by their colour, bricks well burnt looking of a deeper red than those which are not; and if you strike them with any thing, they will make a brisk sound, and not be subject to moulder and break to dirt, as others will. Let the builder make election of bricks that are made of a mould that was digged up in the winter, and laid a frosting, it being very advantageous to the substance of the brick. Let him take such observation as to Tyles, as to their colour, and as to their tinkling when struck, so that he may find whether they are made of a good mould, and whether well burnt or not; let him take care that his Lime be well burnt, and not by halves, so that the same be half Chalk in stead of Lyme, which is very disadvantageous to the strength of the building, and is dearer to the builder; let the Sand he mixes with his Lyme be as fine as he can conveniently get.

Let him look carefully that he hath his just number of Bricks and Tyles, and that the same be handled carefully to avoid breaking, and that he hath his due proportion of Lyme, and that their Bags be good measure, and honestly filled, there going twenty five Bags or Bushels to an hundred of Lyme; and that he hath his due proportion of sand.

Let

Let him in the buying his Timber, buy the freightest he can light on, there being lesser loss in cutting such, than in other, and the same be well dryed, sound and fit for use, so that the same shall not be subject to shrink or diminish; let him take the same consideration as to his Boards.

Let his Laths be good Hearth-Laths, and his Pins or Pegs for tyling of good Oak.

Let him observe that his materials be well tempered, and fit for the use as they are to be employed on: some sort of work requiring finer materials than others, as shall be hereafter shewed.

Let him observe that his Lindals or Breast-plates, Summers, or what e're they be, be laid so, that they may be able to discharge the stress as the same is to bear; and let him consider before he make any progress in his work, that his house, when built, will render him Eight pound in the hundred at least for every hundred pound expended, or else it will not be worth his Building. And let him be sure that all things be apportioned and made according to the direction set down in the Act of Parliament for rebuilding the City; and such other things as shall be requisite for his observation, let him observe in the ensuing Discourse.

An Inspection into the Artificers respective Mysteries employed in Building.

BEfore I make mention of any peculiar sort of Building, it will not be unnecessary for to give the Builder some insight into the Artificers respective Trades as are concerned in Building, that he may the better know how far to make his Bargain, and deal with them.

Brick-

Brick-layer.

As for the Brick-layer, who doth for the most part agree by the Rod, which is Sixteen Foot and a half square every way, and two hundred seventy two foot in all, the rate demanded by many of them is seven pound a Rod, and they to find all materials; for forty shillings a Rod, and the Builder to find them.

Note, they reduce all their work to one Brick and a half, and so measure the same.

I shall shew what a Rod of work may be reasonably worth, computing all materials and Workmanship at the now rate.

You may reckon that every Rod of Brick-work being reduced to one Brick and a half, will take up Four thousand and five hundred of Bricks; for which if you reckon Sixteen Shillings for every thousand, it comes unto three pounds twelve shillings: every Rod of work doth usually take up an hundred and a quarter of lyme, for which if you reckon after the rate of ten shillings a hundred, it amounts to twelve shillings and six pence: every hundred of Lyme requires two load and a half of Sand; which if you estimate at three shillings *per* load, and for two load and a half, it comes unto seven Shillings and six pence. As for Workmanship, it is commonly accounted amongst ordinary Workmen, that three indifferent Brick-layers, and three Labourers to make and serve them with Bricks and Mortar, are able to erect a Rod and more every day of low Party-walls, and ordinary work: you may reckon that they are not able to do so much of Front-work, and Arching-work for windows, and that it doth require some small time for to fit their Scaffolds, which is some loss in their work: so that if you give the Brick-layers after the rate of three shillings a day, and the Labourers one shilling and eight pence, the

the Workmanship for Brick-layers and Labourers, reckoning that a Brick-layer is able to lay (taking the Front and Arch-work, with the Foundations and party-walls) a thousand Bricks every day, one sort of work with another: a Rod of Brick-work after that rate for Workmanship will amount unto about 21. shillings; and for the Master Work-man for the superviling them, and for his Scaffolds, six or seven shillings a Rod. You may compute the same to amount unto six pound a Rod, which may be reasonable for an agreement by the Great, Materials and Workmen being at the rates before mentioned; or if it be only for Workmanship, you may allow, taking the better sort of work with the worser, one pound eight shillings for every Rod, there being a Master-Workman. Or for their ordinary work, four or five and twenty shillings: And for the extraordinary work (having their Bricks that front the Street rubbed, which cost seven or eight pence the hundred rubbing) thirty four or thirty five shillings a Rod, it may be reasonable: But if you agree by the Great, at the rate of six pound a Rod, materials and workmen being at the dear rate before mentioned, you have that into the Bargain. The ordinary rate for this sort of Brick-work before the late Fire, was five, or five pounds five shillings at the most for every Rod.

Many workmen had rather agree by the Great, and find all materials, than for workmanship only: the reason is, that they do buy their materials at cheaper rates than those out of whose sphere it is, and so have profit not only by the materials, but the profit allowed for Workmanship; and they do sometimes buy very great penny-worths in old Rubbish; some owners not knowing how to value the same, are glad to be quit of it at any rate. In Rubbish there may be many Bricks and Bats which are as useful as if they were new, they being sometimes forc'd to break whole ones for their use. The *Rubbish of Sand* and *Lyme* is likewise *and Lime.*

very

very good, and doth sometimes require no more than an hundred of Lyme to four load of such Rubbish, there being according to that account an hundred of Lyme in that four load, which, as is before computed, is worth about twenty two shillings; whereof if you deduct ten shillings for the cleansing the same, it is worth about three shillings a load to the owner; Lyme being the better for burning, and for use, when the same doth come to be wet again.

Let the Builder take care if there be any Salt-Peter in the earth as he digs out of his Cellar, that he do not mix the same with his Lyme, it being very apt to dissolve in change of weather, and so spoil that which is placed against the wall, and doth likewise weaken the Building.

Brick-layers will many times demand running measure for rubbing the Front, besides the fair allowance before mentioned; running measure being nothing else but the reckoning Shop-windows, Balconies Doors, and other Doors and Windows into their Brick-work, which may in some Building (if deducted) amount unto three or four Rod of work, which is very considerable, and not to be allowed unless upon good consideration.

Chimney-work.

Brick-layers do often agree for Chimney-work by the Rod, and have after the same rate as they have for other work by the Rod, and about ten shillings more: but by reason there is some difficulty in measuring such work, they do for the most part agree for so much a Fire or Chimney-Hearth.

Suppose that your Chimney-work, one with another, will take up for every Chimney one thousand five hundred of Bricks, which amounts unto one pound four shillings; Mortar six shillings; for plaster for the inside of
the

the Chimney, which the Artificer doth many times mix with dung, for the better binding of the same, two shillings; for Workmanship of every Chimney from the bottom to the top, fourteen or fifteen shillings, it comes unto two pounds and six shillings for every Chimney, which may be reasonable for the Brick-layer to take and to find all materials, and fourteen or fifteen shillings a Fire or Hearth, and the Builder to find them.

They do all sorts of Arch-work for Cellars by the Rod, and may reasonably have nine or ten shillings a Rod more for this sort of work than other plain work, it requiring more art and pains in fitting their Frames for the making and laying the same

A Rod of Brick-work one brick thick, doth take nigh three thousand of bricks, and twenty one bags of Lyme, and one load and three quarters of Sand.

A Rod of Brick-work a brick and a half thick, takes up four thousand five hundred of bricks, an hundred and a quarter of Lyme, and two load and a half of Sand.

A Rod of Brick-work two bricks thick, doth take up six thousand of bricks, forty two bags of Lyme, and thre load and a half of Sand, and something more.

A Rod of Brick-work two bricks and a half thick, takes up seven thousand five hundred of bricks, fifty two bags of Lyme, and four load and a quarter of Sand.

A Rod of Brick-work three bricks thick, takes up nine thousand of bricks, sixty two bags of Lyme, and a little more, and five load of Sand.

Tyling.

The Brick-layers do for the most part agree for the Tyling of Houses by the square, which is ten foot every way, and a hundred foot in the whole; they demand very largely for this sort of work, some of them demanding forty shillings a square.

A

A square of Tyling takes up about seven hundred of Tyles, which if you compute at the rate of one pound five shillings a thousand, it comes unto seventeen shillings and six pence: Harth-laths, which are sold by the bundle or hundred, and about twenty pence a bundle or hundred: Peggs for Tyling by the bushel, and about two shillings and six pence. So if you reckon for Lathes, Peggs and Nails three shillings; for Mortar, which is not much finer than that for Brick-work, but must be better wrought and drier, you may reckon that it may reasonably take a fifth part of so much as is allowed for a Rod of Brick-work, for which you may reckon four shillings and six pence, or five shillings; for workmanship, for every square three shillings, two reasonable Brick-layers and three Labourers being with much ease able for to lathe and lay four square every day; to which you may add one shilling for every square for the Master-Brick-layers supervising them; for which if you agree by the great, and the work-man to find all materials; you may give for every square of Tyling twenty nine or thirty shillings, materials being at the Rates before mentioned.

For workmanship of every square three and six pence, or four shillings: some will inform the Builders of the great loss as happens by broken Tyles, which is something, but not much; they making use of most halves and pieces of Tyles in one place or other; but notwithstanding; in the allowance of thirty shillings a square, there is enough for the loss.

If you lay six Lathes in every two foot, the Tyles will be four inches distance from each other; every square will take up six hundred of tyles.

If you lay seven Lathes in two foot, the Tyles will be distant from each other about three inches and an half, and will take up seven hundred of Tyles, which is the most usual and best way of Tyling.

If you lay eight Lathes in two foot, it will be distant
three

three inches, and will take up eight hundred of tyles.

Note, That you have ten Ridge-Tyles to every thousand.

Before the late Fire, twenty and five shillings a square for Tiling, was the common Rate.

They agree for the laying of ten-Inch Tyles, for Pavements for Cellars and Kitchens, by the hundred: Suppose an hundred of Tyles will cost ten shillings, they will find Mortar and lay the same for four shillings an hundred, or fourteen by the great,

Carpenters.

Carpenters do for the most part deal by the square, which is ten foot every way, and an hundred in all. They agree so for their Flooring, Partitioning, Raftering, and have several prices for every sort of work, according as the same may be. For Stair-cases, they either agree by the whole, or by the step; for their Windows they agree for so much a light. Of every particular I shall give the Builder some insight.

Flooring.

Suppose that six square of Flooring will take up three load of Timber, and that the same will cost two pounds fifteen shillings a load, (a load being fifty foot) which comes unto for three load, eight pounds and five shillings; you may reckon that the Sawyer hath, one load with another (taking the better work with the worser, as Summers, Breast-plates, with Joists, Rasters and Window-frames) eight shillings: The Carpenters workmanship for framing, raising, and laying every square of such work, at five shillings, which comes unto for six square
one

one pound and ten shillings ; And the Summers, Joynts, Sawing, Framing, and raising for the six square, nine pounds and nineteen shillings.

Every square will take up at the least eleven or twelve boards, they being ten, eleven, or twelve inches broad one with another, and about ten foot long : the rate of such boards you may reckon at seven pounds ten shillings for an hundred, which for every square comes to fifteen shillings, and for the whole six square it comes to four pounds and ten shillings : to this you may add four shillings for plaining, laying, and for nails, and nayling every square ; And for the six square it comes unto one pound and four shillings ; in all for the boarding five pounds fourteen shillings. And if you sum the Joynts and Flooring together, it comes unto sixteen pounds thirteen shillings ; which if you divide into squares, it comes unto two pounds fifteen shillings and six pence a square ; which may be reasonable, every square taking up so much Timber, Boards, and Nails, and being at the rates before mentioned.

Note, That every square of Flooring doth not take up so much Timber ; this being onely set down for demonstration.

2. If you agree with the Master-workman by the great for this sort of work, and he find Nails, Sawing, Framing, and Laying, it may be worth fourteen or fifteen shillings a Square, which you may compute for the Sawing, as aforesaid, four shillings for Framing and Laying a Square, one indifferent workman being with ease able to frame near two Square every day ; so that if you reckon that he is able to frame and lay a Square one day with another, it taking some time in fitting the same to the Building, for which you may reckon five shillings ; for plaining the boards, and shooting them, for a Square,

two

two shillings; for laying and nailing them, two shillings; which comes to in all thirteen shillings: so that if you add for the Matters supervising them, you may make the same up fourteen or fifteen shillings, for sawing, framing, raising, plaining, shooting, and nailing; which is reasonable.

3. Before the Fire, work-men would have afforded to have framed, raised, and fitted, a Square of such Flooring as is before mentioned, and have found all materials, the Joists and Summers being Oak, and such Deals, for forty eight shillings the Square; and if the Summers and Joists were to be made of Fir, they would frame the same for forty four or forty five shillings; the price of Fir-timber being doubled since the late Fire.

Yellow Fir, called *Dram*, which comes from *Long-bund*, *Tonsberry*, *Swinsound*, *Mosse*, *Dronten*, *Bergen*, and other places, is the best sort of Fir for flooring, and is longer than the white Fir: this sort of Fire is very scarce and dear at present. Deals of fourteen or fifteen foot long, and of fourteen or fifteen inches broad, are most decent for Flooring, although they usually have more than twice the rate of ordinary Deals.

The usual loss in Oaken Timber in Slabs, and in Sawing, it being indifferent freight, and fit for the use of building, is about six foot in every load: the loss in Fir is not half so much.

Partitioning.

Suppose the principal Timber in a Partition-wall be four and three inches, smaller Timber three and two inches; a square will take up ten foot of Timber, for which you may reckon eleven shillings, for the Sawing

of which one shilling and six pence ; for the framing, fitting, and Nails, five shillings and six pence ; which being computed together, amounts unto eighteen shillings for every square.

Note, That into the squares of Partitioning they reckon Door-Frames; and that seven, eight, or nine shillings may be reasonable for the Workmanship of Partition-Walls, and for Nails.

Mantel-trees and Torsells.

For fitting of Mantel-trees and Torsells (the Timber and sawing being at the charge of the Builder) one shilling for every Chimney.

Wall-plates, Lindals, and such like, used by the Bricklayers to defray the burthen of their work, hath no work performed by the Carpenter, except sawing, which you may reckon as aforesaid.

Window-Frames.

They usually agree for Window-frames either by the Great for workmanship, the Builder finding materials, or to find them themselves : they usually reckon them by the light. Suppose that a Window hath four lights, and double rabbetted for Ornament ; It will take up seven foot of Timber, for which you may reckon seven shillings and seven pence ; for the sawing, one shilling ; for Workmanship, three shillings and four pence : which is for every light without sawing ten pence , and with sawing one shilling and one penny a light ; and for the whole four lights twelve shillings and one penny, which is three shillings a light ; there being so much Timber and Workmanship in the same. Windows with
single

single Rabbets may be afforded one penny in every light cheaper than others. This is the usual way as they agree for Windows, let the same have as many lights as it will.

Twelve pence a light for workmanship is a fair allowance.

Shop-Windows.

Suppose a Shop-window to be twenty foot front, and the entrance or door into the house to be in the middle, and to be three foot and a half, to be made according to the Act of Parliament.

The Best-summer will take up twenty six foot of Timber, the Supporters by the Door and in the Windows over the Door twenty four foot, the ground-plate sixteen foot, the two Supporters by the wall eighteen foot, the two Transoms for the Stalls eight foot, for two bars to fasten the windows four foot; it will take up in Timber in all about ninety six foot, for which you may reckon five pounds and six shillings; for sawing of the same, fifteen shillings; for framing and fitting all the afore-said Timber, one pound and five shillings; for making a good firm Door of board lyn'd with thin Deal, and glewed, with handsome ledges or battouns for ornament, eighteen shillings; for Shop-windows made after the same manner, lined, and with ledges for ornament, there being two Windows, and each to cover forty two foot, and to be folded up with a Bar to fasten the same when shut, three pounds and five shillings. For Iron hinges to the Door, six shillings eight pence; for two Bars of Iron over the Door, two shillings; for a Lock and Staple substantial, ten shillings; for eight pair of Hinges for the windows, at three shillings a pair, one pound four shillings; for Hooks and Staples, six shillings eight pence; the same in the whole, for Doors, Windows, and Smiths

F 2

work,

work, will amount unto about thirteen pounds, eighteen shillings and four pence.

And about six pounds nineteen shillings a square for this sort of work.

Roofing.

They usually agree for the Roofing by the Square, which is ten foot square as aforesaid : they do this by the Great for Workmanship, or for Workmanship and Materials. Suppose a Roof that is twenty foot wide and thirty foot long, the principal Rafter being nine and seven inches, the Purloins twelve and nine inches, the Wall-Plates eight and six inches, the small Rafter four and five inches, the Coller-beams six and three inches; this will take up to make the same, in all two hundred foot of Timber, which is for every square about twenty two foot and a quarter, allowing usually waste in Timber. The Timber in all you may reckon (at two pounds fifteen shillings a load) eleven pounds; for sawing of the four load (at eight shillings a load) one pound twelve shillings; for Workmanship, in framing, raising, and fitting, (at eight shillings a square, being for the whole nine square) three pounds twelve shillings; which amounts in all, for the said nine squares, to sixteen pounds four shillings, and for every square one pound sixteen shillings: which is reasonable, and may be afforded.

For Workmanship and all materials to be found by the Carpenter, except Timber, twelve or thirteen shillings a square is reasonable.

Note,

Note, That the Windows erected in the Roof are alwayes measured into the Squares ; and it is acompted amongst Workmen to take up no more Timber, than if it were not ; so that it doth make good the same.

The ordinary way of computing how many square of Raftering there will be in a Roof, is first to consider how much the same is upon the square, as in the foregoing Discourse : If twenty foot wide, and thirty foot long, which you may reckon after this manner , twenty times thirty is six hundred foot, to which add the half to what is upon the square, which is three hundred, and being added together make nine hundred ; every hundred being a square, there is nine square ; that is a general rule in computing Roofing.

Stair-cases.

The usual way for agreeing for this sort of work, is either by the Step, or by the Great: of both which I shall give you some accompt.

First, for a pair of open Newel-Stairs (which are Stairs with a well or light coming from the top.)

Suppose that the Stairs that are to be carried through the whole Building are to be placed in eight foot, and five foot and a half, the Stairs being three foot wide all the way, the open Newel will be five foot : admit that there will be seventeen Steps, which must be made of Elm for the toughness of it, being fittest for this use ; it may be worth two shillings and four pence every Step for Workmanship and Materials : which being reckoned all together, amounts unto one pound nineteen shillings and eight pence. To this you may add for Posts, Rails, Banisters, Pendalls, and Balls for conveniency and ornament, one pound ten shillings ; which amounts unto for

the whole Stair-case, and for all materials, three pounds ten shillings; and for every Step, reckoning the Rails, Posts, &c. something more than four shillings a Step.

Note, That you may make these Stairs either Harth-pace-stairs, and so have one or two landing-places; or else flyers and winders, which are plain, and triangular Steps without any Landing-place. For an ordinary Stair-case, that may be comprised in six or four foot, only with flyers and winders, it may be reasonably worth two shillings six pence a Step, and the Workmen to find all materials.

And if the Owner finds them, then eight pence or nine pence for every Step.

Plasterers.

You may reckon that an hundred of Lyme which is worth ten shillings, and half a load of Sand that is worth one shilling six pence to mix with the same, and five Bushels of hair worth seven shillings six pence, will cover one thousand of Laths that are five foot long, and worth one shilling eight pence a bundle or hundred, which for a thousand is sixteen shillings and eight pence; which, for all materials, amounts to 1 *l.* 15 *s.* 8 *d.* to which you may add 14 *s.* 4 *d.* for Workmanship in Lathing and Plastering, it amounts unto 2 *l.* 10 *s.* which is after the rate of ten pence for every square yard of work for Ceiling or Partition-walls, a thousand of Laths covering sixty yards of Plastering.

Every hundred of Laths cover six yards of Ceiling or Partitioning. Partition-walls you may have Lathed, Plastered, and Rendered, for one shilling a yard.

For Lathing and Plastering against Ceilings and Partitions, ten pence a yard, and they to find all materials; or two pence half penny or three pence a yard, and the owner to find them.

For

For white washing with size, two pence every yard.

For Rendring, two pence a yard.

Plastering upon Brick-work, is worth four pence a yard, and to find all materials ; for Workmanship it is worth one penny or three half pence the yard.

Fret Ceeling, the Mouldings being five inches deep, and full of fine work, with divers enrichments in Moulding and Fouldage in Squares and Angles, the Workmanship may be worth four shillings a yard flat measure.

Half a Tun of Plaster of *Paris* will lay fifteen yards of Lath-work, and as much more upon Brick ; it is worth one shilling six pence the yard to be cast upon Laths, and about nine pence a yard to be cast upon Brick.

Masons.

For Peer-stones on both sides the Building, fronting high and principal Streets, at five shillings the foot the Mason to find stone , and one shilling a foot for Workmanship.

Paving with *Portland* stone, eight pence a foot.

Paving with white and black Marble, at two shillings and eight pence the foot.

Paving with ordinary paving Stones for Kitchens and Yards, seven pence or eight pence a foot.

Smiths-Work.

Iron Bars, Hinges, Bolts, Staples, great Hooks, and such like plain-work, are worth two pence half penny, or three pence the pound weight.

Iron Casements about two foot and a half high, about three shillings and six pence , or four shillings a peece.

Foulding Casements about the same height, with Bolts and

and other accoutrements, is worth eleven or twelve shillings a pair.

Iron Casements of three foot or something larger, four shillings and six pence, or five shillings a pair.

Folding Casements for the same bigness, fifteen or sixteen shillings a pair.

Iron Balconies made plain and Rivetted, are worth three pence half penny a pound.

Iron work is either dearer or cheaper, according as the price of Coals either rise or fall.

An Iron Balconie made with a plain Bar, and a twisted one, and the principal Bars twisted, the small Bars being about two inches and a half, or three inches distance from each other, and a principal twisted Bar with a knob in it in every yard or four foot, is worth five pence the pound, or five pence half penny or farthing. Every yard to make it substantial and good work, will weigh about Seventy and five pound weight, and a Balconie of ten foot will weigh four hundred and fifty pound weight, being with the two sides Eighteen foot, which is six yards; and at five pence a pound it amounts unto nine pounds seven shillings and six pence for a Balconie.

Note, That they weigh with the Balconie the Bars that are to fasten the Signe thereunto.

A plain Balconie for the Dimensions aforesaid made very slight, may not be worth above three pence half penny the pound; or four pence at the most; and will not weigh above three hundred and fifty pound.

Plummers.

Sheet-lead weighing about six or seven pound every square foot, they will cast the same and lay the same for three shillings a hundred; and it being fifteen pound a
Fother,

Fother, they will lay it for eighteen shillings a hundred, and find lead.

For Leaden Gutters, for every hundred weight, and to find Sawder, three or four and twenty shillings, and about eight shillings an hundred for Workmanship and Sawder. Sawder is about eight pence or nine pence a pound.

In exchange of old Lead for Sheet-lead, they will accept three shillings in every hundred for waste.

Glasery.

The best *French* Glafs wrought with good Lead well Simmoned, is worth Sixteen pence a foot: it is very scarce now, and consequently dear.

English Glafs with square panes is worth six pence half penny or seven pence a foot; some will take six pence a foot.

Ordinary Glafs for quarries at five pence, or five pence half penny a foot.

Observe that the Glasier doth not put amongst the white Glafs, green.

Painters.

For a fair Stone-colour laid in Oyl for Windows, Doors, Rails and Bannisters, for Stair-cases, Shop-windows and Mundilions, is worth twelve pence the yard being coloured over thrice.

For a Timber-Colour in Oyl over Doors and Windows, at nine pence a yard.

For a Door painted on the one side with a Stone-colour, twelve pence a yard.

And for a light of a Window six pence.

For a Lead-colour in Oyl, nine pence or ten pence a yard.

Painters

Painters work of ordinary lights of Windows in Oyl at six pence a yard, or three pence a light.

For Painting the best *Cerulean* or Blew colour in Oyl 1 s. 6 d. a yard.

Foyners-Work.

All Ballisters at one penny an inch upon the Diameter of the Ballister; so if two inches over, two shillings a Dozen; and if six inches, six shillings a Dozen.

Heads and Pendants, being four inches Diameter, at four pence a head; six inches Diameter, six pence a head.

Balls twelve inches Diameter, two shillings and six pence a piece.

Carvers.

For Candilivers about eighteen inches deep, and eight inches broad, handsomely Carved with flowers or other work, at five shillings apiece Carving, only to be placed under the Roof fronting the Street.

There are those that do it for four shillings apiece, but very ordinary work.

Experience tells us, that as times change, and occasions differ, prices may alter; that therefore is left to the Builders discretion to make inquiry into. I shall now proceed to give an accompt what several Houses to be built according as direction is set down in the act of Parliament may be worth, Materials being at the rates as are there supposed.

*How Houses must be Built in high
and principal Streets.*

Houses which front high and principal Streets, are to be four Stories high besides Cellars and Garrets, the Cellar not to be less than six inches lower than the Street, nor more than eighteen inches; the Cellar not to be less than six foot and a half, the first Story to be ten foot high, the Second ten foot and a half, the third nine foot, the fourth eight foot and a half: All the walls in the Celler that are front and reer, to be two Bricks and a half thick.

Front and reer walls in the first Story to be two Bricks and a half thick, and the party-walls of the first Story two Bricks thick; and the other three Stories both front and reer, and party-walls, to be of the thickness of one Brick and a half; and the Garrets to be one Brick at the least.

These Buildings are to have Iron Balconies of the breadth of four foot, and the length of two thirds of the front at least; the rest to have a Penthouse of the same breadth, covered with Tyles, Lead or Slate.

*What several Houses in high and principal
Streets, and in other Streets and Lanes of note,
may cost building.*

On a computation in a House that is to be built in a high Street, according to the Statute, and is to be twenty foot Front, and forty four foot in depth, you may reckon your Brick-work and the rest of the Building after this manner.

First,

First, as to the Party-walls.

The Cellar being six foot and a half, and ten inches being added for the room taken up by Summers and Joynts, is seven foot and four inches; and so you may add as followeth, into the Brick-work.

	<i>Foot. Inches.</i>	
The Cellar	07	4
The second Floor	10	10
The third Floor	11	4
The fourth Floor	09	9
The fifth Floor	09	3
Which being all joyned together, from the Cellar to the Roof, it amounts unto	48	6

	<i>Rods. Foot.</i>	
Which being computed at a Brick and half for one Party-wall, is	7	290
For both Party-walls	15	188

To this you may add for the surplufage of one Brick in the Cellar, 209 foot for one Party-wall, it being reduced to one Brick and a half.

For both the Party-walls	001	146
The surplufage of half a Brick for one Party-wall in the first Story, being reduced to one Brick and half	00	177
For both Party-walls	00	354
The Party-wall, or Gable-end, and brick-work in the Garret, being reduced to one Brick and a half, will take up	00	220
Both Gable-ends	00	440
All the oddc feet of one Party-wall, reckoning the Garrets, in all amounts unto	03	020
And both the Party-walls amount unto	06	040
		One

	Rods.	Foot.
One Party-wall altogether, will be	10	020
Both the Party-walls will be	20	040

One party-wall at 6 l. a Rod, amounts unto 60 l. 8 s. 10 d. Both Party-walls unto 120 l. 17 s. 8 d.

Every Rod of this sort of Brick-work, is worth for workmanship 25 s. a Rod.

Every foot of Brick-work is worth five pence farthing a foot ; and in that computation is one shilling less in a Rod of Brick-work than six pound.

Let the Builder observe that there be no Sammel-bricks made use of, not so much as in the Choar of the Foundation ; and that the ground whereon the Foundation is to be laid, be well rammed.

Where the Foundation is to be placed in a Bog or infirm Ground, which may probably be near the *Tbames*, and other places, there it will be convenient for the Builder to drive Timber-stakes, so to make the same as firm as he can ; for if his Foundation should slip or give way but one inch, it would make a crack in that side of Brick-work from bottom to the top, if not endanger the whole Building.

Let the Mortar be well tempered ; being unequal in thickness, it may cause the Work to settle more in one place than in another next to the Brick-work in Front and Reer.

There being in the whole, running measure, <i>Rods.</i>	<i>Foot.</i>
and at a brick and a half	6 202
The surplusage of one brick in the Cellar is	0 198
The surplusage of one brick in the first Story, is	0 286
The whole Front and Reer-work, running measure, is	8 142
You may deduct for four Windows in the Cellar nine foot apiece, which in brick-work being five half bricks thick, is in all	0 60
	For

For the Shop-windows, being five half bricks Rods. Foot. thick	0	314
For two Windows and a Door in the Reer	0	117
For two Windows forty foot, and a Balcony- door thirty five foot	0	75
For three Windows backwards	0	60
For six Windows in the third Story	0	120
For six Windows in the fourth Story	0	90
The whole deduction is 836 foot, which is	3	20
So that the whole Front-work and Reer- work is	5	122

Which is worth, after the rate of six pound a Rod, thirty two pounds fifteen shillings.

Note, That this sort of work to be Rubbed, and the Windows and Doors being Arched, is worth thirty four or thirty five shillings a Rod. And to erect the whole Work at six pound a Rod, they may perform this into the bargain, materials being at the rates before mentioned.

In this building suppose there be nine Chimneys, which being reduced to a brick and a half, will take up three Rod of work ; every Chimney taking fifteen hundred of bricks, for which you may reckon seven pound a Rod ; which is one and twenty pounds, and two pounds six shillings eight pence a Chimney.

Note, That if your Stack of Chimneys be placed against a Party-wall, it may be erected about ten shillings in every Chimney cheaper, or six shillings eight pence at the least, it taking up three hundred or four hundred brick less : After which reckoning, the Chimneys come unto forty shillings apiece, and eighteen pounds in the whole. The Chimneys in this building, as you may observe by the Plat-form, are placed in the Party-wall. But in the whole building it will be

be much at one charge ; the Chimneys being placed in the middle , take up so much the less Timber in Partitions; and the Stack doth sometimes serve to lay Joynts on, instead of a Summer or Girder.

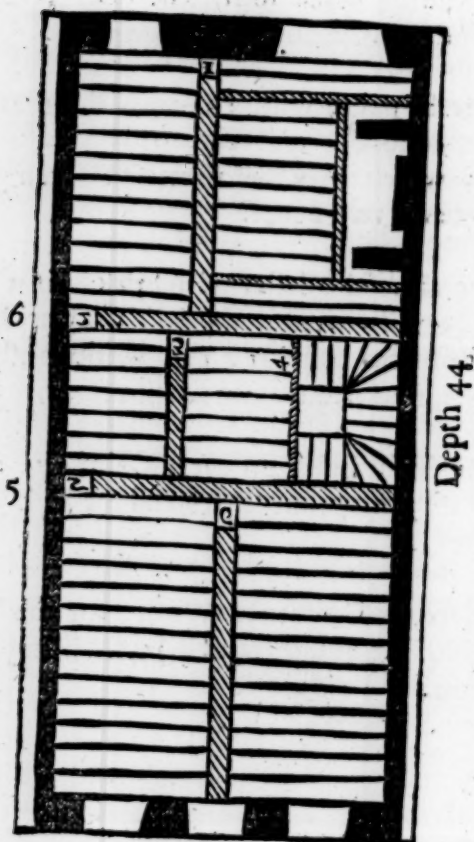
The Cellar to be paved with Ten-inch Tyles at fourteen shillings a hundred, will take up one thousand and eighty Tyles; which may be valued at seven pounds eleven shillings and two pence.

To pave the aforesaid Cellar with brick , it will take three thousand and five hundred bricks ; for which you may reckon for bricks, mortar , and workmanship for laying the same, four pounds and ten shillings.

For six Ten-inch Tyles for every Chimney , and for the nine Chimneys fifty four Tyles, and for laying them, eight shillings.

Next , as to the Carpenters Work , for the Dimensions aforesaid , the Summers and Joynts being laid as in the Platform.

Plat.

Platform the first.

Front 20

The two first Girders or Summers being to be according to the Statute fourteen Inches broad and ten Inches deep, being from eighteen to one and twenty foot long; the Joists adjoining to the same to be three Inches thick, and six, seven or eight deep, being ten foot long.

The third Summer to be eleven Inches broad, and eight in depth, being from ten foot to fifteen foot in length.

The

eight in depth, being from ten foot to fifteen foot in length.

The fourth being a Cross Joyst or Girder, must be stronger than the other Joysts; because of the discharge of the Stairs, you may reckon at six inches broad, and eight inches deep.

The Joysts adjoyning to the same to be three inches broad, and six, seven, or eight inches in depth.

The fifth Summer to be fourteen inches in breadth, and ten inches in depth.

The sixth Summer to be thirteen inches in breadth, and nine inches in depth, being about fifteen or eighteen foot long. The Joysts to be three inches, and six, seven, or eight inches as aforesaid.

The three Joysts for the discharge of the Chimney-work to be six inches broad, and eight inches in depth.

The first Summer or Girder takes up eighteen foot of Timber.

The second Summer or Girder takes up twenty foot of Timber.

The four hundred and twenty Joysts adjoyning to the same, take up thirty three foot, and four hundred thirty two inches; every Joyst being nine foot and a half, takes two thousand three hundred ninety and four square Inches, being three inches thick, and seven inches in depth.

The third Summer being nine foot, will take up five foot, and eight hundred fifty and six square Inches.

The fourth being a Cross Joyst or Girder for the Stays, will take two foot, and five hundred seventy and six square Inches.

The twelve Cross Joysts, every Joyst being seven foot long and three inches in thickness, and seven inches in depth, every Joyst will take up one thousand seven hundred sixty and four square Inches; and the twelve will take up twelve foot of Timber, and three hundred and fifty and two Inches.

The fifth Summer will take up twenty square foot of Timber.

The sixth Summer being nine and thirteen inches, will take up eleven foot of Timber, and one thousand fifty and two Inches.

The twenty Joyfts, with the three Joyfts for the discharge of the Chimney, will take up in all eight and twenty foot of Timber, and six hundred and eighteen inches.

The odde inches in all amount unto two foot and two hundred and thirty inches.

To which if you adde about eighteen foot for loss of Timber in Slabs, and for the Saw, which make the same one hundred sixty and nine foot, being seven square of Flooring; there being seventy nine foot deducted for the Chimney and Stair-case.

According to which Computation, every square will take up twenty four foot of Timber, and is worth about 1 l. 6 s. 4 d. Timber being at 2 l. 15 s. a Load: Every square will take up eleven or twelve Boards which are about ten, eleven, or twelve inches broad, and about ten foot one with another in length; for which you may reckon fifteen shillings for Nails, for laying the said Boards ten pence or twelve pence. For Workmanship in Sawing, Framing, Raifing, Plaining, and laying the Timber, Boards, Nails, and nailing, fifteen shillings every square.

For a whole square it amounts unto two pounds sixteen shillings and four pence.

For the seven square, nineteen pounds sixteen shillings and four pence.

For the second Story, the Builder may be satisfied that his second Floor will take him up as much Timber and Boards as his first. But in this sort of Flooring the most usual way is for to lay all the Joyfts fronting the Street; for which I need not to lay down any Platform, it being so plain.

The Builder may adde fourscore foot for the Balconie and Pent-house ; for which he may reckon forty shillings, which may be allowed for the room taken up by the Chimneys in the Rooms fronting the Streets : so that for the five Floors it amounts unto Ninety nine pounds one shilling and eight pence.

For decency it will be requisite not to have the Girders altogether so deep as ten inches in the second, third, and fourth Story ; if the Girder be about nine inches deep, although it be the broader it matters not, and the Joynts adjoyning to the same, to be about eight inches in depth : the Plastering and Lathing under the same will take up about an inch, which will make the Ceiling very uniform : to make it after this manner, it will not take up any more Timber than the first Floor, there being four Girders in the same.

Let the Builder observe to lay the ends of his Joynts and Summers in Loam, to preserve them from rotting ; the heat of the Lyme very much rotting and consuming them.

Observe that the Carpenter doth pin all his Tayl-Joynts, they being apt to slip, having no greater stay than a Brick in the wall.

Note, That the Carpenter doth often deviate from the Scantlings before mentioned, and computed to be in all the Stories : he sometimes laying his Joynts thirteen or fourteen inches distance from each other, and makes them fourteen or fifteen foot long, whereas they ought to be but ten foot long, and will make the Girders smaller. Let the Builder observe to take this benefit to himself.

Scantlings for Timber for Floors, set down by
the Statute, for high and principal Streets
or Lanes.

	foot	breadth inches	length inches	thick inches	depth inches
Summers or Gir- ders which bear in length from	10	15	11	8	Joyfts 3
	15	18	13	9	which 7
	18	21	14	10	bear 7
	21	24	16	12	ten 8
	24	26	17	14	foot 8

Principal discharges upon Peers, or Brest- 13 { $\frac{7}{12}$ } 12
Summers, in the first Story, in fronts 15 { $\frac{7}{12}$ } 13
Binding-Joyfts, with their Trimming-Joyfts, thickness
five inches, depth equal to their own floors.

Wall-plates, or raising Pieces $\frac{10}{8}$ } and { 6
and Beams 7 } { 6
5

Lintals of Oak in the first and second Story, eight inches,
and six-inches.

Lintals of Oak in the third Story, five inches, and four
inches.

For Timber-sawing, framing, and laying round the
Hearth of every Chimney, taking up three quarters of a
foot of Timber, for which altogether you may reckon
two shillings a Chimney, and for the nine Chimneys
eighteen shillings.

The Builder may also allow six foot of Timber for e-
very Chimney, for Mantle-trees and Torsels; and for
the nine Chimneys it will take up one Load and four foot
of Timber. The sawing and Workmanship for every
Chimney is worth two shillings.

The Timber and Workmanship worth eight shillings
and

and six pence a Mantle-tree and Torfel, and for the nine Chimnies three pounds sixteen shillings and six pence.

Timber in Lintals.

One Lintal to discharge the building of the two back Windows in the Cellar, five foot of Timber.

One Lintal to discharge the two Windows and back-door in the first Story, eight foot of Timber.

One Lintal to discharge the two Windows and Balcony-door, eight foot of Timber.

One Lintal to discharge the three back-Windows of the second Story, eight foot of Timber.

Lintals to discharge the back-work in the third Story, for the six Windows, twelve foot of Timber.

Lintals in all, will take up about one and forty foot of Timber; for sawing of which you may reckon six shillings, and for Timber 2 l. 5 s. 1 d. which comes unto in all for sawing and Timber.

}	l.	s.	d.
	2	11	1

Note, *There is no work performed by the Carpenters in the Lintals, but by the Sawyer alone.*

The Windows about the whole Building being double rabbeted, you may reckon three shillings a Light, and painting of a fair Stone-colour, being painted there, and laid in Oyl, six pence a Light.

For eight Lights in the four Window-frames in the Cellar	1	4	0
For eight Iron-bars to the same	0	8	0
For painting the same	0	4	0
For glazing the four Windows, every window taking up five foot of Glas; for			

G 3

which

which if you reckon lix pence a foot, for l. s. d.
the four Windows it comes unto 0 10 0

For two Back-windows in the first Story, having eight Lights	1	4	0
For Boards to lay in the 24 Windows, at one shilling three pence apiece	1	10	0
For Bars of Iron	0	8	0
For two Iron Casements	0	9	0
For painting	0	4	0
For glasing the two Windows, taking up twelve foot apiece	0	12	0
For glasing over the back and fore-door, taking up between them seven foot	0	3	6
For two Window-frames fronting the Street in the second Story	1	4	0
For two pair of Foulding Casements	1	10	0
For painting	0	4	0
For glasing	0	12	0
For two Casements	0	9	0
For six Windows in the third Story, having twenty four Lights	3	12	0
For four Casements	0	18	0
For painting	0	12	0
For glasing	1	16	0
For six Windows in the fourth Story, having twelve Lights	1	16	0
For painting	0	6	0
For four Casements	0	18	0
For glasing	1	4	0
For five Windows in the Garrets, having ten Lights	1	10	0
For three Casements	0	13	6
For Painting	0	5	0
For glasing	1	0	0
For glasing the Light for the open Newel	0	6	0
For painting of the Frame	0	1	0
The two Peer-stones will take up about thirty			

and

and eight foot of Stone; which at a Crown a foot, amounts unto nine pounds; whereof is to be repaid 4*l.* 10*s.* by those who have the benefit of the Party-wall. 9 0 0

Shop-Windows.

The Breast-Summer will take up twenty six foot of timber. The Supporters or Frame on each side the door, and for the Windows over the door, twenty four foot of Timber. The Ground-plat sixteen foot of Timber. The Supporters on each side the wall eighteen foot of Timber. The two Transoms by the Stall eight foot of Timber. For two bars of wood to fasten the Foulding-windows four foot of Timber.

In all it will take up about ninety *l.* *s.* *d.*

fix foot of Timber, and is worth in all 5 6 0

For Sawing 0 15 0

For framing and fitting 1 5 0

For making a handfom Door, lyned with Slit-deal, and with Battunes glewed 0 18 0

For Four Foulding-windows made and lyned as the Door, and for lyning with board under the Transum, three pound five shillings: for Iron-hinges to the door six shillings eight pence: for Lock and Staple ten shillings: for 2 bars of Iron for the Windows over the door two shillings: for eight pair of Hinges for the Windows one pound four shillings: for Hooks and Staples six shillings eight pence. It amounts unto in all

5 14 4

The painting the Shop-windows, there being about twenty five yards

1 5 0

G 4

So

So that the Shop-windows amount to in all fifteen pounds three shillings four pence.

The back-door made with a substantial frame, the frame will take up, being made substantial, sixteen foot of Timber; which is seventeen shillings and six pence; for sawing and framing six shillings: for the door making and board six shillings: for a Lock five shillings: for two bars of Iron for the windows over the doors, two shillings. In all

	I	16	6
For the Balcony making, framing, and Lock	I	16	6
For painting on both the sides of both the said Doors and Frames	0	10	0

Roofing.

For eight principal Rafters, being fifteen foot long, and nine inches in depth, and seven in thickness, fifty six foot of Timber.

For sixty four single Rafters, being nine foot long, and five and four inches, seventy and two foot of Timber.

For four Parlines, being between eighteen and one and twenty foot long, and twelve and nine inches in thickness, sixty two foot of Timber.

Single Rafters being four foot long, and four and three inches and a half in thickness, thirty three foot of Timber.

For Collier-beams, sixteen foot of Timber.

The whole Roof after this computation will take up two hundred sixty three foot of Timber; to which you may add thirty seven foot of Timber for loss in the cutting and contriving the same, which makes it up just six Load of Timber, which is worth 2 *l.* 15 *s.* a Load, and for the six Load it amounts unto sixteen pounds and ten shillings.

The

The Building before-mentioned will take up thirteen squares, and twenty foot of Raftering; you may reckon that every square will take up near twenty three foot of Timber, wanting four odd inches, for which you may reckon 1 l. 5 s. For Nails, sawing, framing, raising and fitting 13 s. a square, which amounts unto 1 l. 18 s. a square; and for the whole thirteen squares and twenty foot, 25 l. 1 s. 7 d.

Note, That the Carpenter reckons nothing for the Roofing of Windows in the Roof, but reckons that into the plain square.

Scantlings for Timber for Roofing, set down by the Statute, for the high and principal Streets and Lanes of Note.

	Length.		Thicknes.	
	Foot	Foot	Inches	Inches
	15 to 18	{ at foot 9 } { at top 7 }		7
Principal Rafters from	18 to 21	{ at foot 10 } { at top 8 }		8
	21 to 24	{ at foot 12 } { at top 8 }		8 $\frac{1}{2}$
	24 to 26	{ at foot 13 } { at top 9 }		9
Purlines from	{ 15 } { 18 }	to	{ 18 } { 21 }	9 8 12 9
Single Rafters not exceeding in length	{ 9 } { 6 }		5 4 4 3 $\frac{1}{2}$	

Tyling.

Tyling.

You may reckon that the windows in the Roof will take up a square of Tyling more than the Carpenters reckon for Roofing; for which if you reckon one pound ten shillings a square, the Tyles being laid three inches and a half distance from each other, it amounts unto for fourteen square

	<i>l.</i>	<i>s.</i>	<i>d.</i>
and twenty foot	21	6	0
For Timber for ten Candilivers	0	17	4
For carving them, at five shillings apiece	2	10	0
For painting them on a Stone-colour, and under the Roof	0	6	0
For painting under the Roof in the Reer of the house	0	4	0

The Stairs to this Building, to be contained in five foot and a half, and eight foot to be an open Newel Stair-case with winders and flyers, and the Steps to be about seven inches and a half deep; you may reckon, as in the foregoing discourse, four shillings a Step, with Posts, Rails, Ballisters, and Balls.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
The Stairs in the Cellar to have twelve steps	2	8	0
The Stairs in the first Story to have seventeen steps	3	8	0
The Stairs in the second Story to have eighteen steps	3	12	0
The Stairs in the third Story to have sixteen steps	3	4	0
The Stairs in the fourth Story to have fifteen steps	3	0	0
For painting the Rails, Ballisters, and Balls,			one

Purchaser and Builder.

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one Stair-case with another taking up five l. s. d.
yards 1 5 0

For a Partition-wall in the Cellar, made of
Timber, which hath one square and thirty
foot in the same, you may reckon that e-
very square of partitioning will take up
about eleven foot of timber to be made sub-
stantial; for which you reckon twenty
shillings a square, and for one square and
thirty foot it comes unto 1 6 1

*Note, That the Carpenters do reckon the Door-cases in-
to the square of Partitioning.*

	l.	s.	d.
For a Door	0	4	6
For Plastering, Lathing and Rendring, at one shilling a yard, and for twelve yards and a half in the Cellar	0	12	6
For one square, and 90 foot of Partitioning in the first Story	1	18	0
For a Door	0	6	8
For painting the same on both sides, and Frame	0	5	0
For a Lock two shillings six pence : for a pair of Hinges two shillings six pence	0	5	0
For Lathing and Plastering on both sides of the Partition at ten pence a yard, and for 36 yards, and for sizing two pence a yard	1	16	0

*Note, That if there be no Partition in the Shop, this
charge, which is 4 l. 10 s. 8 d. must be deducted.*

For a Door for the Cellar, Lock, Hinges, and
painting 0 14 0
For plastering both the Party-walls of the
first Story, each taking up 45 yards; for
which

which you may reckon 4 pence a yard, and l.	s.	d.	
for sizing 2 pence	2	5	0
For 88 yards of Lathing and Plaistering the Ceeling of the first Story, and the Ceeling over the Stairs there	3	13	4
For Plaistering and Lathing under the Bal- cony	0	7	6
For fourteen yards of Plaistering in the Reer of the first Story, and on the side of the Windows	0	4	8
For sizing the same	0	2	4
For three square, and seventy foot of Partiti- oning in the Partition in the second Story, being round the Stair-case	3	14	0
For thirty six yards of Plaistering, Lathing, and Rendring	1	16	0
For sizing on one side	0	6	0
For two Doors	0	10	0
For two Locks and two pair of Hinges	0	10	0
For Painting the Doors on the one side, and the Frames	0	6	0
For plaistering both the Party-walls and Chimney, taking up ninety four yards of Plaistering	1	11	4
For sizing the same	0	15	8
For eighty six yards of Lathing and plaister- ing of the Ceeling of the second Story, and the Ceeling over the Stairs there; the Chimneys being deducted	3	11	8
For fifteen yards of Plaistering against the wall in the Front	0	5	0
For sizing	0	2	6
For eighteen yards of Plaistering in the Reer	0	6	0
For sizing the same	0	3	0
For three square and twenty foot of Timber partitioning in the third Story	3	4	0
			For

Purchaser and Builder.

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	<i>l.</i>	<i>s.</i>	<i>d.</i>
For Plaistering, Lathing, and Rendring of			
thirty yards and an half in the third Story	1	10	6
For sizing of the same	0	5	0
For two Doors	0	10	0
For two Locks and two pair of Hinges	0	8	0
For painting of the two Doors on the one side, and the Frames	0	6	0
For thirty three yards of Plaistering in the Front and Reer of the third Story	0	11	0
For sizing the same	0	5	6
For eighty six yards of Lathing and Plaister- ing over the Ceeling in the third Story, over the Stairs	3	11	8
For eighty two yards of Plaistering in the two Partition-walls	1	7	4
For sizing the same	0	13	8
For two square, and sixty seven foot of Tim- ber partitioning in the fourth Story	2	15	2
For twenty five yards and an half of Lathing, Plaistering, and Rendring	1	5	6
For sizing the same	0	4	2
For two Doors	0	10	0
For two Locks, and two pair of Hinges	0	8	0
For painting the two Doors and Frames	0	6	0
For thirty four yards of Plaistering in the Front and Reer of the fourth Story	0	11	4
For sizing the same	0	5	8
For eighty six yards of Lathing and Plaister- ing the Ceeling, and over the Stairs in the fourth Story	3	11	8
For seventy eight yards of Plaistering against both the Party-walls	1	6	0
For sizing the same	0	13	0
For plaistering against the four Gabel-ends in the Garrets, taking up forty yards	0	13	4
For sizing the same	0	6	8
For Lathing and Flaistering under the Win-			
dows,			

dows, and under the Roofs of the two Garrets, in all taking up one hundred and four yards	4	6	8
For forty yards of sizing	0	6	8
For two Doors and Door-cases	0	18	0
For two pair of Hinges	0	4	0
For an Iron Balcony thirteen foot and eight inches long, and four foot broad, weighing five hundred and fifty pound, being made with a plain and wrought Bar, as afore-said	11	9	2
For painting the same	0	7	0
For Sheet-Lead for the Balcony, taking up four hundred weight; and for two hundred weight to cover the Pent-house on each side; you may reckon that the Gutters; and the Covering of the Ledges, and for Spouts, and for some other small uses, will take up at least a thousand weight more of Lead, which is in all sixteen hundred weight; for which you may reckon eighteen shillings an hundred, and for the sixteen hundred it amounts unto	14	8	0
The Brick-layers work, and for bricking the Cellar for the Building before-mentioned, comes unto	197	0	8
The Carpenters and Carvers work in all comes unto	194	14	7
The Masons work	09	00	0
The Plasterers work	39	13	0
The Smiths work	22	06	0
The Painters work	07	02	0
The Glaziers work	07	03	6
The Plumbers work	14	08	0
The Building all	491	07	9

The Builder is to receive of his next Neighbour, if they

they have the benefit of all his Party-walls and Peer-ages, sixty five pounds and ten pence; which being deducted out of the whole Building, the remainder is 426 l. 6 s. 11 d.

In the Building before and hereafter mentioned, there is no mention made of the digging the Cellars, for that in *London* they are for the most part ready digged; so that the Charge of digging such Cellars is to be added.

Neither have I made any mention of the digging of Vaults for the Necessary-house, for the same reason. Let the Builder make election of a convenient place for the placing the same in, either in an Out-yard, or in a convenient corner in the Cellar, or elsewhere, where it may not be noxious to any part of the house.

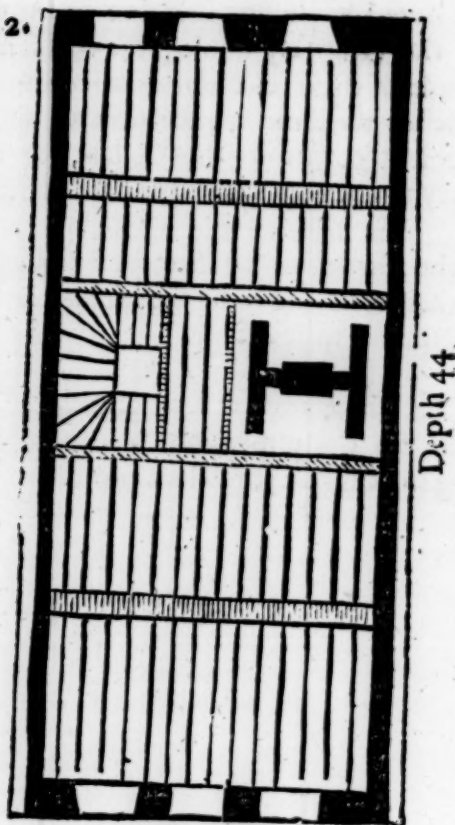
Where the Ground is not firm to build on, but doth require stakes to be droven, the Builder is likewise to make addition for such charge.

Next I shall shew what difference may be in the building a House for the dimensions before-mentioned, and the placing the Chimneys in the middle.

- 1 A Platform for a House in a high Street or Lane of Note, where the Chimneys are to be placed in the middle; The Front being 20 foot, and 44 foot in depth. The Summers and Joynts being laid, as is there supposed.

Computation thereon.

Platform 2.



Front 20

Depth 44

The two principal Summers to take up forty foot of Timber.

The

The sixty Joyfts adjoining to the same, sixty four foot of Timber.

The Cross Joyfts or Summers, in discharge of the Chimney, twenty three foot of Timber.

The four Joyfts in the passage, and in discharge of the Stairs, six foot of Timber.

In all, one hundred thirty three foot of Timber.

To which you may add seventeen foot for loss of Timber in sawing, and in Slabs; which makes the same three Load.

A square and four foot being deducted for Chimneys and Stair-case, the remainder is six square and seventy five foot, every square taking up about twenty two foot and a half of Timber; which makes the same to be about one pound one shilling less in value in every Floor than the Building before-mentioned.

You may by the foregoing Discourse, deduct how much it saves in Partitioning, Lathing, and Plaistering, which is about twelve pound; the Chimneys serving as a Partition-wall: so that it is in all about seventeen pounds five shillings less in value than the other; out of which you may deduct three pounds six shillings eight pence for the greater charge that the Chimneys will be in building, and three pound for another Chimney, Mantle-tree, and Torsels about the Chimney; so that the placing the Chimneys in the middle of the house, will cost about ten pound less than the Building before-mentioned.

What a House will cost to be built in a Street or Lane of Note, according to the dimensions prescribed in the first Platform, and the Joists and Summers to be laid as in the same; and after what manner Houses are to be built in Streets or Lanes of Note.

This sort of Building must be three Stories high, besides Cellars and Garrets. The Cellars to be six foot and a half high (if Springs hinder not) the first Story to be ten foot high, the second nine foot, the third nine foot.

The Walls front and rear as high as the first Story, to be of the thickness of two bricks and a half; And from thence to the Garret-floor one brick and an half.

The Party-walls to be two bricks thick, as high as the first Story, and thence to the Garrets one brick and an half.

Note, That although the Statute doth not enjoin the Party-wall in the Foundation to be more than the thickness of two Bricks, yet Workmen do ordinarily make the same two and a half.

In one Party-wall & Gabel-end, there is eight l. s. d.

Rod, and one hundred thirty five odd Feet 50 19 7

In the other Party-wall as much 50 19 7

The whole Brick-work front and rear coming measure, is seven Rod and one hundred and twenty Foot; the deduction for Windows and Doors is two Rod, and one hundred fifty seven foot; so that the whole Front and Rear-work will be four Rod and two hundred thirty seven foot, which may be valued at

29 04 0

For seven Chimneys

14 00 0

For Mantle-trees and Torsels, and for Tim-

ber-

Purchaser and Builder.

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	<i>l.</i>	<i>s.</i>	<i>d.</i>
ber round the Hearth, ten shillings eight			
pence a Chimney	03	14	8
For Tyles for the Hearths of the Chimneys	00	07	0
For paving the Cellar with brick	04	10	0
Every Floor will be worth to be laid, as in the Platform, nineteen pound sixteen shillings and four pence, and for the four Floors	79	05	4
For Lintals	02	04	0
For Roofing	25	01	7
For Tyling	21	06	0
For Roofing the Pent-house, and Tyling	02	10	0
For four pair of Open Newel-staires. The Staires in the Cellar having twelve steps in the first Story seventeen, in the second Story seventeen steps, third Story sixteen steps, in all they come unto	12	08	0
For painting them	00	18	0
For twenty nine Windows, having eighty fix Lights in them	12	18	0
For painting the same	02	03	0
For two pair of Foulding-Casements, and eleven other	03	19	6
For Iron Bars for the Cellar and first Story	00	16	0
For substantial Shop-windows and Doors, Locks and Hinges, and for painting	15	03	4
For a substantial Frame and Back-door, with Hinges, Lock, and painting	02	01	6
For Glasiers work in the whole Building	05	11	6
For a Partition and Door in the Cellar	01	10	7
For Plaistering and rendring the same	00	12	6
For the Partition in the Shop, Door, Plaister- ing and Lathing on both sides; for siz- ing, and for Locks and Hinges	04	10	8
For plaistering both the Party-walls and Reer of the first Story, and for sizing the same	02	12	0
For plaistering and Lathing the Ceeling, and over the Stairs, and under the Pent-house	03	18	0

	<i>l.</i>	<i>s.</i>	<i>d.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>
For Partitioning in the second Story, round the Stair-case	1	19	8				
For plaistering, rendring, and fizing	1	00	0				
For two Doors, Locks, & Hinges	0	06	0		13	10	4
For painting the said Doors	1	19	8				
For plaistering the Party-walls front and reer, and for fizing	3	03	0				
For Lathing and Plaistering over the Ceeling	3	11	2				
For Timber-partitioning in the third Story	2	15	2				
For plaistering, Lathing, rendering, and fizing	1	09	8				
For two Doors, and for Hinges, Locks, and Painting	1	04	0		11	16	6
For plaistering the Party-wall front and reer, and for fizing	2	16	0				
For plaistering and Lathing the Ceeling, and over the Stairs	3	11	8				
For plaistering and fizing the Gabel-ends	1	00	0				
For plaistering and Lathing in the Garrets, and for about forty yards of fizing	4	13	4		6	15	4
For Doors and Door-cases and Hinges	1	02	0				

For Mundilions and painting them, and painting in the Reer

1 12 0

For a thousand weight of Lead taken up in Pipes, Gutters, and in Ridges

9 00 0

The whole Sum

395 18 0

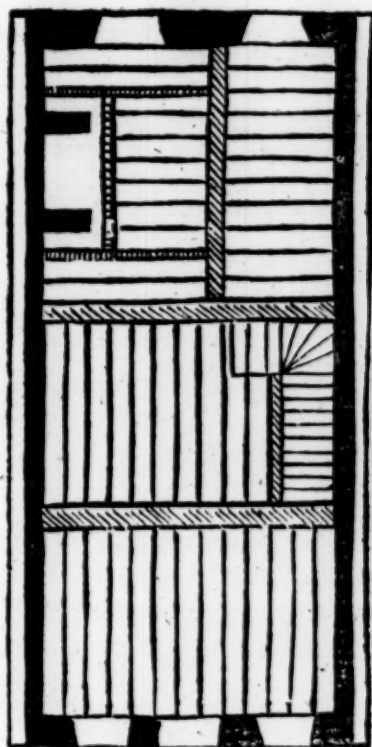
Deduction for Party-walls

050 19 7

The Remainder

344 18 5

A Platform for a House that is in a high and principal Street, or Street or Lane of Note, being 18 foot in Front, and 40 foot in Depth.



Front 18

Depth 40

The Valuation as to the High and Principal Street.

One Wall and Gabel will take up nine Rod
and forty two foot, which may be valued l s. d.
at 54 18 6
The other Party-wall 54 18 6
The Peer-stones 09 00 0
The Brick-work front and reer, there being

H 3

Shop-

Shop-windows, and two Windows in every Room deducted, will amount unto four	l.	s.	d.
Rod, one hundred fifty five foot	27	08	5
For the nine Chimneys	18	00	0
For paving the Cellar with Brick	03	02	8
Every square of Flooring to be laid as in the Platform, will take up twenty two foot and a half of Timber; for which you may reckon for Timber, Boards, sawing, framing, plaining, laying, and nailing, two pound fourteen shillings a square; and for five square and a half, it amounts unto fourteen pound seventeen shillings; and for the five Floors, in all,	74	05	0
For Mantle-trees, and Torsels, and Timber round the Hearth	04	14	6
For Lintels for the Windows	02	05	0
For ten square, and eighty foot of Roofing	21	10	5
For eleven square, and eighty foot of Tyling	17	14	0
For nine Candilivers and painting	03	06	0
For twenty two Window-frames, with sixty four Lights, and painting	11	18	0
For Iron Bars to the Windows in the Cellar and first story, sixteen shillings; for thirteen Casements, two pounds twelve shillings; for a pair of foulding Casements, one pound ten shillings	04	18	0
For glasing in the Cellar ten shillings, in the first Story, and over the Shop-door fourteen shillings six pence; in the second Story, and over the Balcony-door, one pound six pence: in the the third Story one-pound four shillings: in the fourth Story sixteen shillings. In the Garrets sixteen shillings.			
The open Newel Light six shillings	05	07	0
For Shop-windows, Door, Brest-Summers,			

Ground-

Ground-plate, Locks, Staples, Painting, l. s. d.			
and all things belonging to the same	13	00	0
<i>Note, That the Stair-case in the Platform, although it differs from the other Stair-case in the first story, for the conveniency of Shop-room, yet the same is supposed to be an open Newel Stair-case throughout the whole Building, and may be computed for the five pair of Stairs, and painting</i>			
	16	17	0
For the Partition in the Cellar, Plastering and Rendring, and a door	01	18	6
For a Partition in the first Story, and for a Door	02	00	0
For Lock, Hinges and painting	00	15	0
For Plastering, Lathing, and sizing	01	12	0
For Plastering against the Party-walls in Front and Reer, and for sizing	02	08	6
For Lathing and plastering the Ceiling, at ten pence a yard	02	17	6
For a Partition round the Stair-case in the second Story	03	09	5
For two Doors, Locks, Hinges, and painting	01	13	0
For Plastering, Lathing, sizing and rendring the Partition	01	18	6
For Plastering and sizing the Party-walls, and in the Front and Reer	02	17	0
For Lathing and Plastering the Ceiling	02	17	6
For a Partition in the third Story	02	19	5
For Doors, Locks, Staples, Hinges, and Painting	01	13	0
For Lathing, Plastering, Rendring and sizing the Partition	01	12	8
For Plastering and Lathing the Party-walls, and in the Front and Reer	02	09	0
For Plastering the Ceiling	02	17	6
For the Partition-wall in the fourth Story	02	14	1
			For

For Locks, Staples, Hinges, Door, and Paint- ing	l.	s.	d.
	01	10	0
Plastering, Lathing, Rendring, and lizing the same	01	10	4
For Plastering the Front and Reer	02	05	6
For Plastering the Ceiling	02	17	6
For Plastering, Lathing, lizing Doors, Door- cases, and Hinges in the Garrets	06	10	4
This House, for Balcony and Spouts, will take up in Lead in all about fifteen hun- dred weight	13	10	0
For an Iron Balcony made with a plain Bar and a twisted one, being twelve foot long, weighing five hundred weight	10	18	9
Building cost in all	420	18	0
Deduction for Party-walls and Peer-stones	059	08	06
Remainder	361	09	06

*What a Building will cost for the Dimensions in
the last Platform mentioned, in a Street or
Lane of Note.*

One Party-wall and Gabel-end, takes up se- ven Rod, and two hundred and six foot	l.	s.	d.
	46	7	1
The other Party-wall	46	7	1
For four Rod and nine foot in Front and Reer	24	4	2
For the four Floors	55	8	0
For Chimneys, Mantle-trees and Torsels, and Timber round the Hearth	18	0	0
For Lintals for Windows	02	1	0
For eighteen Window-frames with forty eight			

Lights;

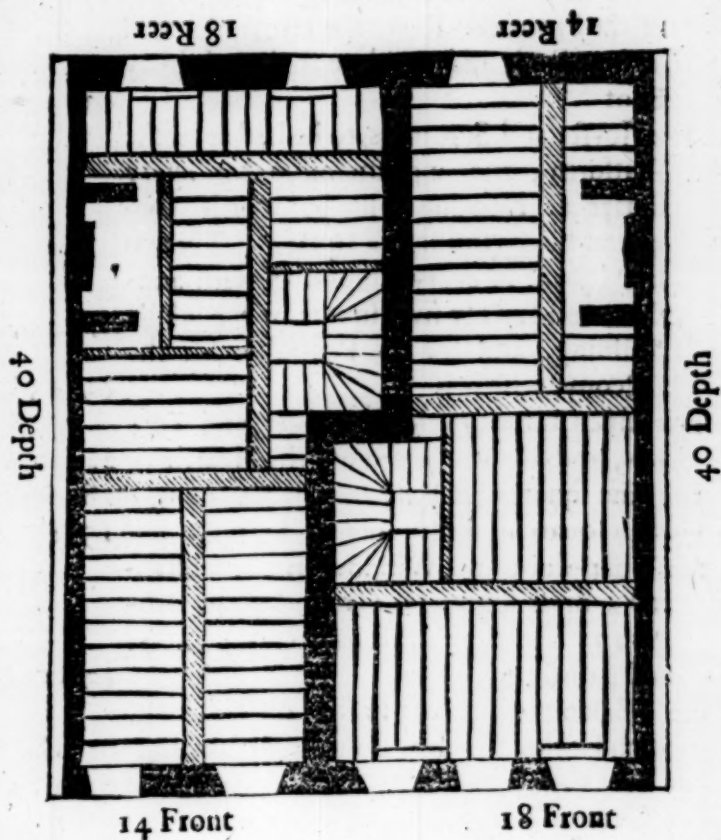
Purchaser and Builder.

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	<i>l.</i>	<i>s.</i>	<i>d.</i>
Lights; and for painting and broad Boards in the the Windows	09	0	0
For Roofing	21	10	5
For Tyling	17	14	0
For Mundilions and painting, and painting in the Reer	01	9	0
For four pair of Open Newel Stairs, and painting	13	6	0
For Shop-windows and Doors, with its appurtenances	13	0	0
For a Partition in the Cellar, plaistering and a Door	01	18	6
For paving the Cellar with brick	03	2	8
For a Partion in the first Story, and for a Door, with Lock, Hinges, Painting; and for Plaistering, Lathing, and fizing	04	7	8
For Plaistering against the Party-wall in the Reer, and fizing; and for plaistering the Ceeling and over the Stairs	05	6	0
For a partition round the Stair-case in the second Story; and for two Doors, Locks, Hinges, and painting	04	19	0
For plaistering, lathing, fizing, and rendring on the partition	01	16	2
For plaistering and Lathing the Ceeling, and plaistering against the Party-wall in the front and reer	05	11	6
For a partition in the third Story, with Door, Lock, and Staples; plaistering, rendring, and fizing against the same	05	15	1
For plaistering and lathing the Ceeling and Party-walls in the front and reer	05	6	6
For plaistering, lathing, fizing, Doors, and Door-cases in the Garrets	06	10	4
For a Pent-house over the Shop-windows, and Tyling	01	18	0
For nine Casements, and two pair of folding-casements,			

casements, and Iron Bars for the Cellar, l.	s.	d.
and in the back windows	04	08 0
For Glasing all the Windows	04	10 0
For nine hundred and fifty weight of Lead taken up in Ledges and Gutters	08	11 0
	<hr/>	
In all amounts unto	332	07 2
	<hr/>	
Deduction for Party-walls	46	07 1
	<hr/>	
Remainder	286	00 1

A Platform for two Houses, the Ground lying with a Nuke, as there is supposed, one of the Houses being 18 Foot wide in the Front, and but 14 in the Reer; the other being but 14 Foot wide in the Front, and 18 in the Reer. Both being 40 Foot deep.



The Computation as to the high and principal Street of the House which is 18 Foot wide in the Front.

The whole Party-wall with the Nuke, hath

ten

ten Rod and twenty Foot ; a moiety of
which Charge the Builder must bear, *l. s. d.*
which is 30 04 10

The other Party-wall hath nine Rod and
forty two foot ; a moiety of which is to be
born by his next Neighbour, if he have the
benefit of all his wall 54 18 06

For Stone-peers 09 00 00

All Windows and Doors being deducted out
of the Front and Reer, the remainder will
be four Rod, and one hundred and thirty
Foot 26 17 04

The Joysts and Summers to be laid as in the
Platform, the workmanship for every
square of Flooring will be worth two
pound fifteen shillings a square. There is
five square in every Floor one with ano-
ther, and twenty five square in the whole
Building, and for the Penthouse for the
Balcony, which is 69 15 00

For nine Chimneys, Mantle-trees, and Tor-
sels, and for Timber round the Hearth 22 10 00

For nine square and sixty foot of Raftering 18 05 00

For ten square and fifty foot of Tyling 15 15 00

For Shop-door and Windows made substan-
tial, Brest-summers, Ground-plate, Hin-
ges and Locks, with all its appurtenances,
and painting 13 00 00

For a Balcony-door and Frame made strong,
with Locks, Hinges, Bolts, and painting 01 18 0

For fifty Lights, and for painting 08 15 0

For thirteen Casements, and for Iron Bars 03 16 0

For Glasiers work at six pence a foot 04 03 0

For nine Candilivers, Carving, Timber, and
painting 03 01 0

For plaistering and sizing one Party-wall and
Gabel-end, taking up one hundred and

ninety

	<i>l.</i>	<i>s.</i>	<i>d.</i>
ninety yards	04	15	0
For plaistering and sizing the Party-wall and Gabel-end, where the Nuke is	05	05	0
For paving the Cellar with Brick	02	18	0
For Lintals for Windows, and sawing	02	00	0
For five pair of Stairs, and painting	16	19	0
For a Partition in the Cellar, Lathing, and plaistering, and a Door and Hinges	01	15	8
For a Partition in the first Story, plaistering, lathing, & rendring; Door, Lock, & Hinges	02	13	4
For a Partition, and round the Stair-case in the second Story : for two Doors, and Hinges and Locks, plaistering, rendring and sizing	05	17	8
For a Partition, and round the Stair-case in the third Story : for plaistering, rendring, & sizing; for two Doors, Locks, & Hinges	05	0	4
For a Partition, and round the Stair-case in the fourth Story; plaistering, rendring, Doors, Locks and Hinges, &c.	04	15	9
For lathing and plaistering the four Ceelings, every Ceeling taking up 63 yards	10	11	0
For lathing, plaistering and sizing in the Garrets, Door-case, Door, painting, and some partitioning	05	18	9
For 98 yards of plaistering and sizing in the front and reer of the whole Building	02	9	0
For a Balcony, with a plain Bar and a twisted one, to be twelve foot long, and for painting	10	18	9
For fourteen hundred and fifty weight of Lead, taken up in the whole House	13	01	0
The whole charge will be	376	16	11
The deduction for one of the Party-walls, the wall with the Nuke being deducted	31	19	8
The Remainder	344	17	8

The other House in the Platform, which is to be but fourteen foot in Front; The charge for Brick-work, Flooring, Tying, and most other charges, will be the same as is before particularly set down.

This Building will cost about ten pound less than the last Building mentioned; The Shop-windows being lesser and smaller in front; the Balcony is likewise smaller: there is fewer Candilivers in the front than the other Building, so that the charge of this Building may be valued, the Party-wall being deducted as in the other Building; which is 234 *l.* 17 *s.* 8 *d.*

*A Computation on the two Platforms last mentioned,
as to a Street or Lane of Note.*

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For the half of 8 Rod, and 135 foot in the Party-wall, with the Nuke	50	19	7
The other Party-wall there is seven Rod, and two hundred and six foot	46	7	1
For three Rod, and 242 foot of Brick-work in the front and rear	23	3	4
For the four Floors and Pent-house	56	0	0
For 7 Chimneys, with Mantle-trees and Torfels, and Timber round the Hearth	17	10	0
For Raftering	18	5	0
For Tying the Roof and Pent-house	16	5	10
The Shop-windows and Door, with all materials	13	00	0
For twelve Windows, with thirty seven Lights, and painting	06	09	6
For Glassery	03	05	6
For Casements and Iron Bars	03	07	0
For Lintals	01	15	0
For Mundilions and painting	01	08	0
For four pair of Stairs, and painting	13	06	0
For paving the Cellar with brick	02	18	0
For Partitioning in the Cellar, Lathing and			

plai-

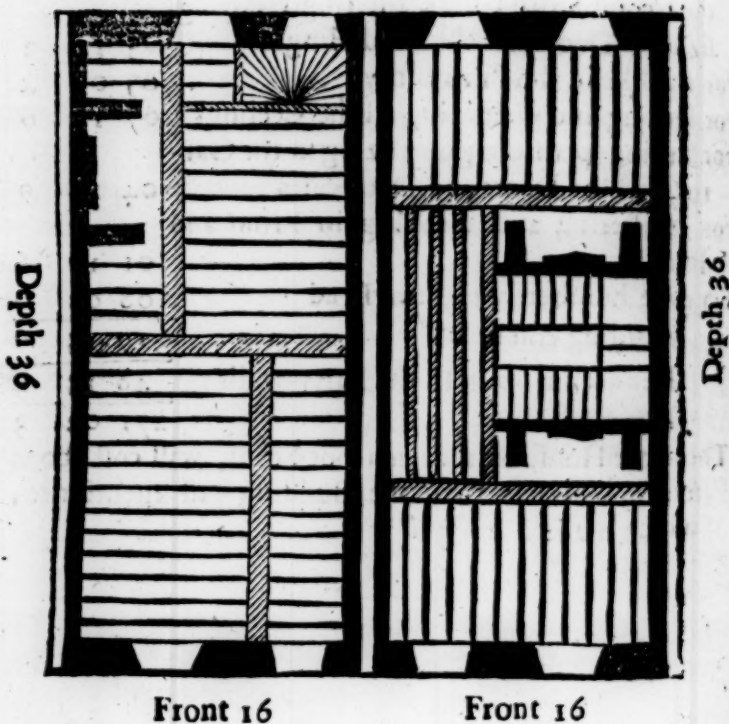
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	<i>l.</i>	<i>s.</i>	<i>d.</i>
plaistering, Doors and Hinges	01	15	8
The like in the first Story	02	13	4
For plaistering and fizing the Party-wall where the Nuke is	04	02	6
For plaistering and fizing the other	03	15	0
For a Partition and round the Stair-case in the second Story; for plaistering, rendring, fizing; Doors, Locks, and Hinges	5	11	2
For the like in the third Story	05	00	4
For lathing and plaistering all the Ceelings	07	17	6
For lathing, plaistering and fizing in the Gar- ret, and for Doors and Door-cases	04	18	9
For plaistering and rendring in Front and Reer	01	19	6
For nine hundred weight of Lead	08	02	0
Building cost in all	319	15	7
Deduction for both the Party-walls	48	13	4
Remainder	271	02	3
The other House of fourteen foot Front, will cost about five pound less than the Building last mentioned, which is 266 <i>l.</i> 2 <i>s.</i> 3 <i>d.</i>			

Two

Two Platforms, both being 16 foot apiece in the Front, and 36 foot in Depth; wherein is shew'd the difference as to the charge, in the placing of Chimneys and Stairs.



Valuation as to the first Platform, whose Chimneys are placed in the middle.

For one Party-wall and Gabel-end, taking up eight Rod and sixty five foot	l. s. d. q.
	49 17 10 ob
For the other	49 17 10 ob
All Windows being deducted out of the Front and Reer, the remainder will be four Rod and 130 Foot	26 17 6
	For

For ten Chimneys, Mantle-trees, and Tor-			
fels, at two pound sixteen shillings eight	<i>l.</i>	<i>s.</i>	<i>d.</i>
pence a Chimney	28	6	8
There being one hundred forty four foot de-			
ducted for Stairs and Chimneys, the re-			
mainder will be about 3 square and a half;			
which at two pound fifteen shillings a			
square, is worth for the five Floors and			
Pent-house	42	00	0
For nine square and sixty foot of Roofing	18	5	0
For Tyling	15	15	0
For Shop-windows made substantial, paint-			
ing, with all its appurtenances	11	15	0
For Peer-Stones	09	0	0
For five pair of Hearth-pace Stairs with an			
open Newel, and painting	19	9	0
For Lintals	02	0	0
For fifty Lights and painting	08	15	0
For Casements and Iron Bars	03	16	0
For Glassery	04	03	0
For Candilivers, Carving, Timber and paint-			
ing	02	14	0
For plaistering and fizing against the Party-			
walls	08	05	0
For plaistering and fizing against the Front			
and Reer	02	9	0
For a small Partition of sixty foot, with a			
door in the same into the passage of the se-			
cond Room in the first Story; and for			
plaistering, rendring, and fizing the same;			
Door, Lock and Hinges	01	10	2
For a Balcony, door, and Painting	01	18	0
For the like in the second Story, having two			
partitions	03	1	2
For a Partition, with the like materials in			
the third Story	02	19	0
For the like in the fourth Story	02	16	8
			For

For plaistering, rendring and sizing in the	<i>l.</i>	<i>s.</i>	<i>d.</i>
Garrets, and for Doors and Door-cases	04	18	10
For Lathing and plaistering of the four Ceelings	10	11	0
For Lead taken up in the whole Building	13	01	0
For an Iron Balcony made plain, and twisted			
Bar rivetted, and painting	19	03	6
The whole will cost	361	5	3
Deduction for Peer-stones, and	54	7	10ob
Party-wall			
Remainder	306	7	4ob

Valuation as to the second Platform, which is Sixteen foot in Front, and Thirty six in Depth, as to the Principal Street.

	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>q.</i>
For the Party-wall and Gabel-end	49	17	10	ob
The other Party-wall	49	17	10	ob
For Peer-stones	9	0	0	
The Front and Reer-wall	26	17	6	
For nine Chimneys, Mantle-trees, and Torsels	22	10	0	
For the five Floors, every Floor having five squares, and for the Penthouse	69	15	0	
For Roofing	18	5	0	
For Tyling	15	15	0	
For Lintals, Window-frames, and painting	9	17	0	
For Shop-windows, Door, and painting, and its appurtenances	11	15	0	
For Casements, Iron Bars, and Glassery	07	15	6	
For Candilivers and painting	02	14	0	
For a Balcony, Door, and painting	01	18	0	
For a Partition-wall, plaistering, rendring and sizing in the first Story, and two Doors, Locks and painting	03	16	8	
For a partition, and one round the Stair-case in the second Story; for plaistering,				

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rendring, and sizing : for two Doors, l. s. d.			
Locks, and Hinges, and painting	05	18	2
For a Partition, and one round the Stair case in the third Story : for two Doors, plaister- ing, rendring, and sizing, painting the Doors, Locks and Hinges	04	16	8
For the like in the fourth Story	04	10	4
For plaistering, rendring and sizing in the Garrets	05	04	6
For a pair of Stairs, with flyers and windows, and painting	09	17	0
For Lathing and Plaistering the Ceelings	10	11	0
For plaistering and sizing against both the Party-walls	08	05	0
For plaistering and sizing in the front and reer	02	09	0
For Lead taken up in the Building, at eigh- teen shillings an hundred	13	01	0
For a Balcony made with a plain Bar and a twisted one, and painting	10	03	4
Sum in all	375	10	5
Deduction for Party-wall and Peer- stones	54	7	10 ob
Remainder	320	2	6 ob

*Next, as to the Valuation as to a Street and Lane
of note, for the Building, whose Chimneys and
Stair-case is in the middle.*

	l.	s.	d. q.
For the Brick-work of one Party-wall	41	14	4 ob
The other Party-wall	41	14	4 ob
For the Walls Front and Reer, windows be- ing deducted	23	03	4
For eight Chimneys, Mantle-trees, and Torsels, and for Timber round the Hearth	22	13	4
			For

For Shop-windows and Doors, with all materials	l.	s.	d.
	11	15	0
For Window-frames, painting, Glassery, Iron Bars and Casements, Lintals, Mundilions and painting	16	05	0
For four Floors, at nine pound ten shillings six pence a Floor	38	10	0
For Roofing, Tyling, and Penthouse	34	10	10
For four pair of Hearth-pace Stairs, and painting	15	12	0
For Lathing and Plaistering the Ceelings	07	14	0
For plaistering and sizing against the Party-walls and Chimneys	07	14	0
For plaistering and sizing against the front and reer	02	00	0
For a small Partition in the first Story, with a Door to the second Room, Lock, and Hinges: for plaistering, rendring, and sizing, having two partitions and doors	01	10	2
For the like in the second Story	03	00	0
For the like in the third Story	02	18	0
For plaistering, rendring and sizing in the Garret, Door, and Door-case, and for Locks and Hinges	04	18	0
For nine hundred weight of Lead	08	02	0
Building cost in all	283	15	5
Deduction for both the Party-walls	41	14	4 ob
Remainder	242	1	0 ob

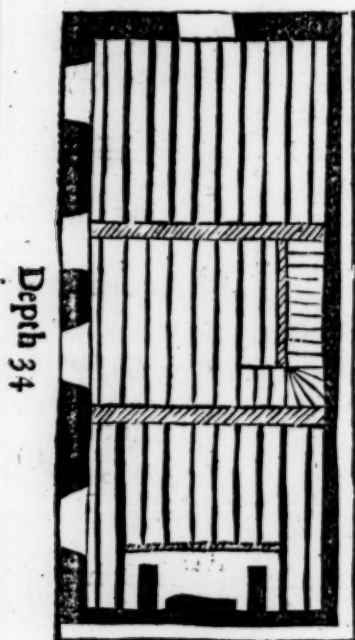
Valuation as to a Street or Lane of Note, of the other Building, which is 16 foot in Front, and 36 foot in Depth.

	l.	s.	d. q.
For one Party-wall	41	14	4 ob
For the other	41	14	4 ob
			For

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	<i>l.</i>	<i>s.</i>	<i>d.</i>
For the Wall front and rear, Windows deducted	23	03	4
For seven Chimneys, Mantle-trees, and Torsels	17	10	0
For Shop-windows and Doors, with all materials	11	15	0
For Window-frames, Painting, Glassery, Iron Bars, Casements, Lintals, Mundilions, and Painting	15	17	0
For four floors, every floor taking up five square, and for the Penthouse	56	00	0
For Roofing, Tyling, and Tyling the Penthouse	34	10	10
For four pair of Stairs, with floors and windows, and painting	08	00	0
For a Partition-wall, plaistering, rendring, and fizing in the first Story; for two Doors, Locks, Hinges, and painting	03	16	8
For the like in the second Story, and for plaistering round the Stair-case	05	15	8
For the like in the third Story	04	16	8
For plaistering, rendring, and fizing in the Garret, and for a Door and Hinges	05	04	6
For Lathing and Plaistering the Ceelings			
For plaistering and fizing against the Party-wall and Chimneys	06	04	9
For plaistering and fizing in the front and rear	02	00	0
For Lead	08	02	0
<hr/>			
The whole Building will cost	286	03	11
<hr/>			
Deduction for Party-walls	41	14	4 ob
<hr/>			
Remainder	244	9	6 ob

A Platform for a Corner-House, either in a high Street, or Lane of Note, that is 15 foot in Front, and 34 foot in Depth.



Front 15

A Computation as to the high Street.

For one Party-wall, being thirty four foot in	<i>l.</i>	<i>s.</i>	<i>d.</i>
depth	46	13	11
For the other Party-wall, being sixteen foot	21	19	06
For Peer-stones, Corner-Buildings requiring			
stronger than others	10	00	00
For the Brick-work fronting both the			
Streets	58	13	09
For five floors, every one taking up about			
tree square and a half	48	00	0
			For

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	<i>l.</i>	<i>s.</i>	<i>d.</i>
For a Penthouse, and Tyling	03	00	0
For Shop-windows made substantial, for fronting the Street, and about twenty foot fronting the Lane, and two doors passing through the Shop, and painting	24	00	0
For Roofing	14	10	0
For Tyling	13	02	0
For twenty six windows, with seventy six Lights, and for painting	13	06	0
For Lintals, Smiths-work for Bars and Case- ments	06	00	0
For Glasiers work	07	02	0
For Balcony, Door, and painting, with Locks, and Hinges, and frame	01	18	0
For five pair of Stairs, and painting	16	19	0
For plaistering and sizing against the Party- walls	05	12	6
For Plaistering and Lathing the five Ceelings	09	11	8
For plaistering and sizing front and reer	03	13	6
For eight Candilivers, and painting in the front	03	08	0
For Mundilions fronting a lane of Note, and painting	02	15	0
For a Partition in the first Story, two Doors, Locks, and Hinges, and for plaistering and sizing	03	06	8
For a Partition in the second Story, for plai- stering and lathing, sizing and rendring: two Doors, Locks and Hinges, and paint- ing	05	18	8
For a Partition in the third Story, and one round the Stair-case, with materials as in the other	05	12	4
For the like in the fourth Story	05	08	4
For plaistering, lathing and sizing in the Gar- ret, and for Doors and Hinges	05	03	4
I 4			For

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For sixteen hundred weight of Lead	14	08	0
For an Iron Balcony, and painting	09	15	0
Building cost in all	349	16	10
Deduction for one Party-wall and Peer-stone	25	11	11 ob
For the other Party-wall, if they make use of the whole wall	10	19	9
Deduction in all	36	11	8 ob
Remainder	313	5	1 ob

A Computation as to a Street and Lane of Note.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For one Party-wall	39	08	0
For the other Party-wall	18	10	8
For the Wall fronting both the Streets	34	15	0
For Roofing and Tyling	27	12	0
For Shop-windows, Doors, painting, with all materials about the same	24	00	0
For four floors, and for the Penthouse and Tyling	41	00	0
For handsom Mundilions and painting	03	18	0
For four pair of Staires, and painting	03	06	0
For Window-frames, and painting	09	02	0
For Iron Bars and Casements	03	01	0
For Glasiers work	05	04	0
For Lintals	02	00	0
For seven Chimneys with Mantle-trees and Torsels, and Timber round the Hearth	17	10	0
For plaistering and fizing against the Party- walls	04	05	0
For plaistering and fizing in the Front	03	00	0
For a Partition in the first Story, two Doors, Locks, Hinges, plaistering, lathing, ren- ding and fizing	03	06	8

For

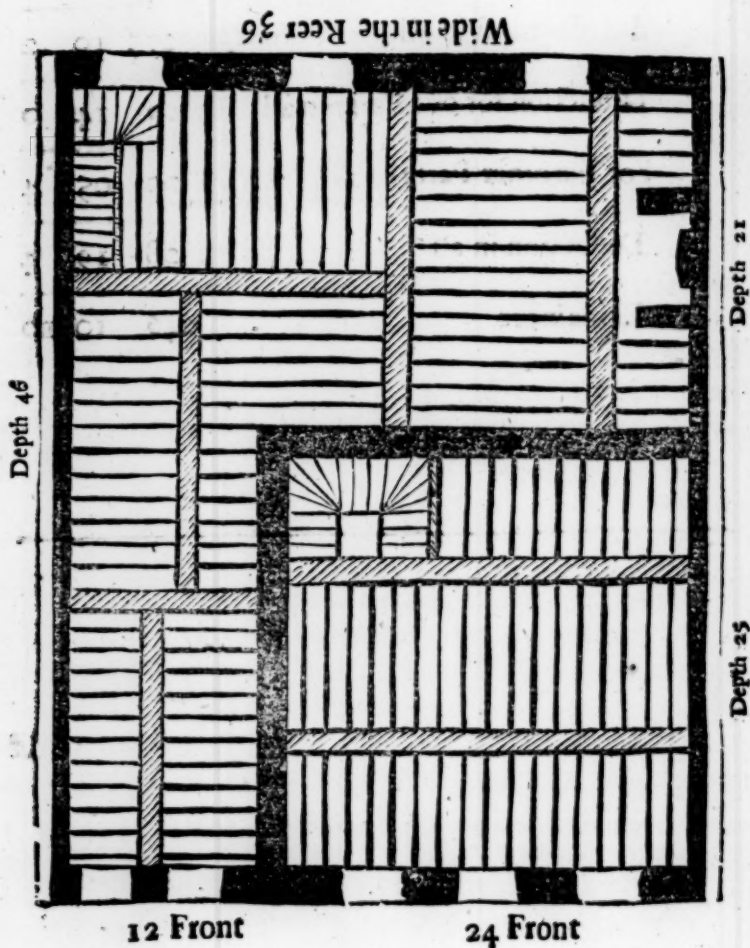
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	<i>l.</i>	<i>s.</i>	<i>d.</i>
For the like in the second Story, and round the Stair-case	05	16	4
For the like in the third Story	05	12	2
For plaistering, lathing, and fizing in the Garret, and for Doors and Hinges	05	03	4
For a thousand weight of Lead	09	00	0
<hr/>			
Building cost in all	275	10	2
<hr/>			
Deduction for one Party-wall	19	14	0
<hr/>			
For the other Party-wall	09	05	4
<hr/>			
Deduction in all	28	19	4
<hr/>			
Remainder	246	10	10

4

A Platform for two Houses, the Ground lying as is there supposed, one being 12 foot in Front, and 36 foot wide in the Reer, the other 24 foot Front.



*Valuation as to the House which is twelve foot in Front
in a high and a principal Street*

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For the Party-wall that is forty six foot in depth	63	03	10
For the other Party-wall, and behinde the other Building	96	03	1
For Peer-stones	09	00	0
For Brick-work in the Front and reer	58	13	4
For the five floors, every floor having about eight square, and about seventy foot, which for one floor is worth twenty three pounds five shillings, and for the five floors	116	5	0
For twenty nine Window-frames, with seventy eight Lights, and painting	13	13	0
For Lintals	02	09	0
For thirteen Chimneys against the Party-wall, Mantle-trees, Torsels, and Timber round the Hearth	36	10	0
For Iron Bars for the Windows, and for Casements	06	13	0
For Glassery	06	05	0
For five pair of Stairs, to be made with flyers and windows, worth three shillings a Step, and painting	12	14	0
For five square, and eigthy four foot of Raftering	30	03	0
For seventeen square of Tyling	25	10	0
For plaistering and sizing against one Party-wall	05	07	6
For plaistering and sizing against the other Party-wall	09	02	6
For plaistering the four Ceelings	17	01	8
For plaistering and sizing in the front and reer	07	07	0
For Shop-windows, and painting, and Door,			with

	<i>l.</i>	<i>s.</i>	<i>d.</i>
with all its appurtenances	08	05	0
For a Balcony, Door, Frame, Locks, with all its appurtenances	01	18	0
For paving the Cellar with brick	05	00	0
For a Partition in the second Story, with two Doors, Locks and Hinges, and for plaistering, rendring, and fizing	04	05	8
For three Partitions in the second Story, being divided into three Rooms. For three Doors, Locks and Hinges, and painting; and for plaistering, rendring and fizing	09	10	2
For the like in the third Story	08	12	0
For the like in the fourth Story	08	04	0
For plaistering, lathing, and fizing in the Garret, and for two Doors and Partitions	13	13	4
For six Candilivers and painting	02	12	0
For an Iron Balcony, with a plain Bar and a twisted one, weighing four hundred weight	09	03	6
For sixteen hundred weight of Lead	14	08	0
Building cost in all	501	12	7
Deduction for Party-wall and Peer-stone	84	03	5 ob
Remainder	417	9	1 ob

Valuation as to the House which is to be twenty four foot in Front, and twenty five foot in depth, as to the high and principal Street.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For one Party-wall and Gabel-end	34	06	9
For the other Party-wall	34	06	9
For the Brick-work in the Reer	32	19	3
For Peer-stones	09	00	0
For Brick-work in the front	20	03	4
For			

For five floors, every floor having about four square and a quarter, which is worth for one square eleven pounds thirteen shillings and nine pence, and for the five floors and Balcony	l.	s.	d.
	60	00	0
For window-frames with thirty six lights, Painting and Lintals	07	11	0
For eight Chimneys with Mantle-trees and Torsels, and Timber round the Hearths	20	00	0
For Iron Bars for the windows, casements and Glassery	07	00	0
For five pair of Stairs with an open Newel, and for painting	16	19	0
For nine square of Raftering	17	02	0
For ten square of Tyling, and Tyling the Penthouse	15	06	6
For plaistering and sizing both the Party-walls, and in the rear	08	12	0
For plaistering and sizing against the front	01	07	6
For lathing and plaistering against the four Ceelings	06	05	4
For shop-windows and door, with breftsummers and all its appurtenances, and for painting	17	12	6
For a Balcony, Door, and Frame, with Lock, Hinges, Painting and other appurtenances	01	18	0
For a Door in the Cellar, Painting, Lock, and Hinges	00	13	4
For paving the Cellar with brick	02	14	0
For a Partition round the Stair-case thorow the room in the second Story : for plaistering, lathing, rendring, and sizing : two Doors, Painting, Locks and Hinges	07	15	3
For the like in the third Story	06	16	4
For the like in the fourth Story	06	09	8
For plaistering, lathing, and sizing in the Garret	04	14	8
			For

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For twelve Candilivers, and painting	04	16	0
For an Iron Balcony, with a plain Bar and a twisted one, about eight hundred weight, and painting	18	07	0
For thirteen hundred weight of Lead	11	14	0
House cost building in all	374	10	2
Deduction for Party-walls, and Reer- wall, and Peer-stones	54	16	5 ob
Remainder	319	13	9 ob

*A Valuation as to the House which is to be
twelve foot in Front, in a Street or
Lane of Note.*

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For one Party-wall that is forty six foot in depth	53	06	0
For the other Party-wall	81	02	3
For the Front and Reer-wall	35	06	8
For the four floors	93	00	0
For window-frames with fifty eight Lights, and painting, and for Lintals	12	05	0
For ten Chimneys, Mantle-trees, and Tor- sels, and for Timber round the Hearth	25	00	0
For Glassery, for Iron Bars, and Casements	10	04	0
For four pair of Stairs, with flyers and win- ders	10	09	0
For paving the Cellar	05	00	0
For Raftering and Tying	55	13	0
For Mundilions and painting	01	10	0
For plaistering and lizing against the Party- walls	10	18	0
For lathing and plaistering the three Ceel- ings	12	16	3
For Shop-windows, Door, painting, with all its appurtenances	08	05	0
			For

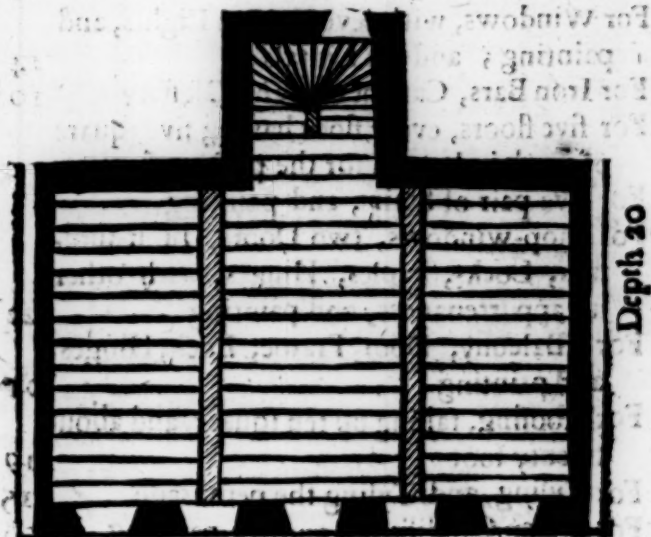
For a Partition in the first Story, with two Doors, Locks and Hinges; and for plastering, rendring, and lizing	04	05	8
For three Partitions in the second Story, two Doors, with the like appurtenances	09	10	0
For the like in the third Story	08	12	0
For plastering, lathing, and lizing in the Garret, and for two Doors and Partitions	13	13	4
For eleven hundred weight of Lead taken up in this Building	09	18	0
Building cost in all	460	14	2
Deduction for Party-walls	72	04	2
Remainder	388	10	0

A Valuation as to the House which is to be 24 foot Front, in a Street or Lane of Note.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For one Party-wall and Gabel-end	28	19	5
For the other Party-wall	28	19	5
For the Reer Party-wall	27	16	3
For Brick-work in the front	18	04	0
For four floors, every floor being worth eleven pounds thirteen shillings nine pence, and for a Penthouse	48	00	0
For eleven Window-frames with twenty eight Lights, and for painting	04	18	0
For Lintals, Glassery, Iron Bars, and Casements	07	04	6
For Shop-door, windows, Brest-summer, with all their appurtenances, and painting	17	12	6
For six Chimneys, with Mantle-trees, Torsels, and Timber round the Hearth	15	00	0
For Raftering and Tyling	32	08	6
For plastering and lizing against the Party-walls, and in the Reer	06	09	0
			For

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For plaistering and fizing against the Front	01	00	0
For plaistering the four Ceelings	04	14	0
For four pair of Open Newel Stairs, and painting	12	08	0
For a Door into the Cellar, with Lock and Hinges ; and for paving the Cellar with Brick	03	17	4
For a Partition round the Stair-case, and through the Room in the second Story : for plaistering, lathing, rendring, and fizing ; two Doors, painting, Locks and Hinges	07	09	8
For the like in the third Story	06	16	4
For plaistering, lathing and fizing in the Garret, and for Mundilions, and painting	06	14	8
For five hundred weight of Lead taken up in the whole Building	04	10	0
Building cost in all	282	1	7
Deduction for Party, and Reer-Party-wall	42	17	6
Remainder	239	04	1

A Platform for a House which is 30 foot in Front, and 20 foot in Depth, and a Nuke for the Stair-case, as is there supposed.



Front 30

Depth 20

A Valuation as to the High Street.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For one Party-wall and Gable-end	27	09	4
For the other	27	09	4
For the Wall in the Reet, not reckoning the Wall round the Stair-case	29	04	4
For a Brick-wall round the Stair-case, it will not be requisite to be altogether so thick as the other Building in the Cellar; it may be two bricks thick, and in the first Story one and a half, and all the rest one brick; which will take up in all, Windows being deducted, three Rod	18	00	0

K

For

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For peer-stones	09	00	0
For the Wall front	25	04	2
For eight Chimneys, Mantle-trees, and Torsels, and for Timber round the Hearth	20	00	0
For Windows, with seventy two Lights, and painting; and for Lintals	14	12	0
For Iron Bars, Casements, and Glassery	10	11	0
For five floors, every floor having five square of work in it, and for the penthouse	70	05	0
For five pair of Stairs, and painting	12	10	0
For Shop-windows, two Doors, Brest-summer, Locks, Staples, Hinges, with other its appurtenances, and painting	22	00	0
For a Balcony, Door, Frame, Lock, Hinges, and painting	01	18	0
For Roofing, taking up ten square, and about twenty foot	19	06	8
For Tyling, and Tyling the penthouse	15	12	0
For fifteen Candelivers, and for painting	06	00	0
For paving the Cellar with brick	02	13	4
For a Door, Lock, Hinges, and painting entering into the Cellar	00	13	4
For plaistering and sizing against the Party-wall, Gabel-end in the rear, and round the Stair-case	10	00	0
For plaistering and sizing against the front	01	15	6
For lathing and plaistering the four Ceelings	10	00	0
For a partition in the second Story; for plaistering, lathing, and sizing; for two Doors, Locks, Hinges, and painting	04	17	8
For the like in the third Story	04	10	0
For the like in the fourth Story	04	06	3
For plaistering, lathing, and sizing in the Garret	04	16	0
For an Iron Balconey, with a plain Bar and a twisted one, weighing about an hundred			

weight

Purchaser and Builder.

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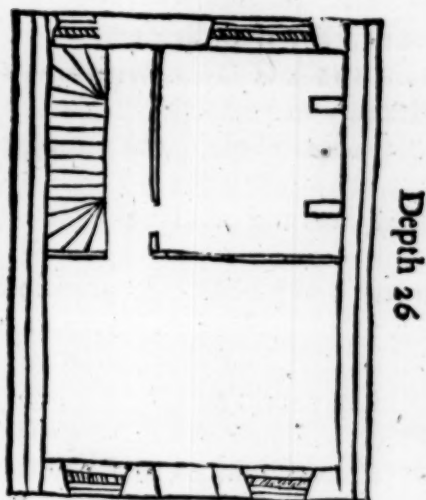
	<i>l.</i>	<i>s.</i>	<i>d.</i>
weight	22	18	9
For fifteen hundred weight of Lead, taken up in this Building	13	10	0
House cost in all	409	02	08
Deduction for Party-wall, and Peer-stones	31	19	4
Remainder	377	03	4

Valuation as to the Street and Lane of Note.

	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>q.</i>
For one Party-wall and Gabel-end	23	03	6	ab
For the other	23	03	6	ob
For the wall in the Reer, not reckoning the wall round the Stair-case	23	03	6	
For the Brick-wall round the Stair-case, taking up two Rod, and an hundred and fifty six Feet	15	08	9	
For the wall in the Front	21	00	0	
For six Chimneys to be placed in the reer-wall, with Mantle-trees, Torsels, and Timber round the hearth; for Lintals, Window-frames, and painting	25	08	0	
For Glassery, Iron Bars, and Casements	07	06	0	
For four floors, every one having five square in the same, worth two pound five shillings a square, and for the penthouse	57	00	0	
For four pair of Stairs and painting	10	00	0	
For Shop-windows, two Doors, Breast-summers, Locks, Staples, Hinges, with other its appurtenances, and painting	22	00	0	
For Roofing and Tyling, and Tyling the penthouse	35	06	8	
For Mundilions and painting	02	10	0	
K 2				For

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For paving the Cellar with Brick, and for Lock, Hinges, and painting	03	06	8
For plaistering and fizing against the Party- wall, and in the Reer, and round the Stair- case	07	10	0
For plaistering and fizing against the Front	01	07	0
For lathing and plaistering the Ceelings	07	10	0
For a partition in the second Story, for lath- ing, plaistering, and fizing the same; for two Doors, Locks, Hinges, and painting	04	15	1
For the like in the third Story	04	10	0
For plaistering, lathing, and fizing in the Garret	04	16	0
For six hundred weight of Lead taken up in this Building	05	08	0
	<hr/>		
Building cost in all	304	12	9
	<hr/>		
Deduction for Party-Wall	23	36	0b
	<hr/>		
Remainder	281	92	0b

A Platform for a Building, which is to be
eighteen foot in Front, and twenty six foot
in Depth.



Front 18

Depth 26

Valuation as to the high Street.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For one Party wall and Gabel-end	35	14	2
For the other Party-wall and Gabel-end	35	14	2
For Peer-stones	09	00	0
For Brick-work, front and reer	27	08	5
For nine Chimneys, Mantle-trees, Torsels, and Timber round the Hearths	22	10	0
For sixty-four Lights and painting, and for Lintals	13	08	0
For Iron Bars in the Windows, Casements, and for Glassery	10	01	6
For the four floors, there being in every floor, three square, and about thirty three foot,			

K 3

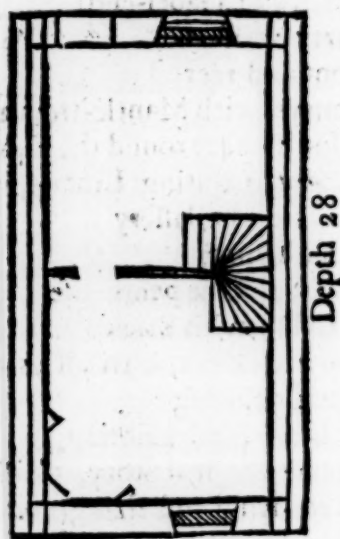
and

and is worth for every floor nine pound three shillings four pence; and for the	<i>l.</i>	<i>s.</i>	<i>d.</i>
five floors and the penthouse	47	00	0
For seven square of Raftering	13	06	0
For eight square of Tyling, with the pent- house	12	00	0
For paving the Cellar with Brick	02	00	0
For Shop-windows and Door, with all its appurtenances, and painting	13	00	0
For a Balconey-door, frame, Lock, Hinges, and painting	01	17	0
For nine Candilivers and painting	03	06	0
For five pair of Stairs, and painting	12	10	0
For three square and nine foot of partition- ing in the first Story, three pound eighteen shillings: for thirty eight yards of plai- stering, rendring and sizing, two pound four shillings and four pence: for three Doors, with Locks, Hinges, and painting	08	02	4
For the like in the second Story, having but two Doors	07	13	4
For the like in the third Story	07	00	4
For the like in the fourth Story	06	16	0
For plaistering and sizing against both the Party-walls	05	15	0
For plaistering and lathing the four Ceelings	07	10	0
For lathing and plaistering the Garret	02	15	0
For plaistering and sizing in the front and reer	02	12	0
For an Iron Balcony, with a plain Bar and a twisted one, and for the painting	10	18	9
For twelve hundred and fifty weight of Lead taken up by the Balcony, and in the Spouts	11	05	0
Building cost in all	289	04	0
Deduction for Party-wall, and Fe-r- stones	} 40 04 2		
Remainder	248	19	10

Valuation as to the Street or Lane of Note.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For one Party-wall, and Gabel-end	30	02	7
For the other Party-wall	30	02	7
For the Wall, front and rear	24	04	2
For seven Chimneys, with Mantle-trees and Torsels, and for Timber round the Hearth	17	10	0
For forty eight Lights, painting, Lintals, Iron Bars, Casements, and Glassery	18	03	6
For Raftering and Tyling	25	12	0
For the four Floors, and the penthouse	38	00	0
For paving the Cellar with Brick	02	00	0
For Shop-windows, Doors, with all its ap- purtenances, and painting	13	00	0
For four pair of Stairs, and painting	10	00	0
For the partition in the first Story, plaister- ing, lathing, rendring and fizing, and for three doors, locks and hinges, and paint- ing	08	02	4
For two doors and the like partitioning in the second Story	07	09	2
For the like in the third Story	07	00	4
For plaistering and fizing against the Party- walls	04	17	6
For lathing and plaistering in the Garret	02	15	0
For plaistering and fizing in the Front and Rear	01	19	0
For plaistering and lathing the three Ceel- ings, and fizing	05	12	6
For Mundilions and painting	01	10	0
For five hundred and fifty weight of Lead	04	19	4
Building cost in all	252	19	8
Deduction for Party-wall	30	02	7
Remainder	222	17	1

A Platform for a House, which is fourteen foot in Front, and twenty eight foot in Depth.



Front 14.

Valuation as to the high Street.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For one Party-wall and Gabel end	38	09	10b
For the other	38	09	10b
For Peer-stones	09	00	0
For Wall, Front and Reer	22	09	2
For nine Chimneys, five whereof are placed in the Corner of the House, so that they having the advantage of both walls, will not be worth above one pound thirteen shillings and fourpences; and for Mantle-trees, Torsels, and for Timber round the Hearths	20	16	8
For fourteen Window-frames with forty-four Lights, and for painting, Lintals,			

for

The City and Country

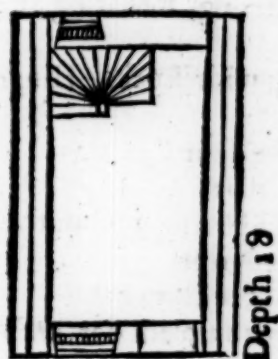
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for a Balcony-Door, Frame, painting, <i>l. s. d.</i>			
with other its appurtenances	10	10	0
For Glasiers work	03	00	0
For Smiths work, for Iron Bars for the lower Windows, one pair of folding Casements, and twenty other Casements	03	11	6
For the five floors, every floor having two square and about seventy five foot, and for the penthouse	38	16	9
For Shop-windows, Doors, with all its ap- purtenances	09	13	0
For the five pair of Stairs, and painting	11	00	0
For paving the Cellar with Brick	01	19	0
For five square and forty six foot of Raftering	10	07	0
For Tyling of six square, and about twenty five foot	09	07	6
For plaistering against the party-walls, and sizing	06	05	0
For plaistering and lathing in the Garret	02	11	0
For plaistering in the front and rear	02	04	0
For plaistering and lathing the four Ceelings, and over the Stairs	06	00	0
For five square of partitioning in the four Stories	05	00	0
For forty-seven Yards of Lathing, plaister- ing, rendring and sizing, in the four Sto- ries; the Doors being Deducted	02	14	10
For six doors, with Locks, Hinges, and paint- ing	04	00	0
For an Iron Balcony, and painting	08	10	0
For one thousand weight of Lead taken up in this Building	09	00	0
Building cost in all	273	13	08
Deduction for Party-walls and Peer stones	42	19	10b
Remainder	230	14	60b
			<i>Va-</i>

Valuation as to a Street or Lane of Note.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For one party-wall and Gabel-end	32	08	110b
For the other	32	08	110b
For the Wall, front and reer	20	10	0
For Shop-windows, with all its appurtenances, and painting	09	13	0
For four pair of Stairs, and painting	09	00	0
For the four floors and penthouse	31	05	0
For Raftering and Tying	19	19	2
For thirty two Lights, and painting	07	00	0
For Glaffery, and the work in the Windows	05	08	0
For plaistering the party-walls, and against the Front and Reer	06	06	9
For paving the Cellar with Brick	01	19	0
For seven Chimneys, with Mantle-trees, Torsels, and Timber round the Hearths	16	03	4
For three square, and about eighty foot of partitioning	03	18	0
For lathing, plaistering, and lizing	01	02	0
For five Doors, for Locks, Hinges, and painting	03	06	8
For plaistering, lathing, and lizing in the Garret	02	11	0
For five hundred weight of Lead	04	10	0
Building cost in all	207	09	10
Deduction for party-walls	32	08	110b
Remainder	175	00	100b

A Platform for a House, which is to be ten foot in Front, and eighteen foot in Depth



Front 10

Valuation as to the High Street:

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For the Party-wall and Gabel-end	24	04	0
The other Party-wall	24	04	0
For Peer-stones	09	00	0
For Brick-work, front and reer	13	06	8
For Shop-windows, and painting	07	00	0
For four Chimneys with Mantle-trees, and Torsels, and Hearth-Timber	10	00	0
For five floors, Chimneys, the Stair-case be- ing deducted, and for a penthouse	16	10	0
For Window-Lights, and for painting, Lin- tals, and for a Balconey-Door, frame, Lock, painting &c.	06	02	6
For Glasiers work, and for Iron Bars and Casements	03	02	4
For five pair of Stairs, and painting	10	00	0
For five Candilivers and painting	02	02	0
For Rastering and Tying, and Tying the			

pent-

	<i>l.</i>	<i>s.</i>	<i>d.</i>
penthouse	10	00	0
For three square of partitioning round the Stairs	03	0	0
For lathing, plaistering, Rendring and fizing on the same	01	05	8
For four Doors, with Locks, Hinges, and painting	02	13	4
For plaistering the four Ceelings	02	10	0
For paying the Cellar	00	14	0
For plaistering and fizing against the Party-walls, front and reer	06	00	0
For plaistering in the Garret	00	18	6
For a Balconey with a plain Bar and a twist-ed one	07	10	0
For eight hundred weight of Lead	06	04	0
Building cost in all	166	07	10
Deduction for Party-wall and Peer-stones	28	14	05
Remainder	138	13	05

Valuation as to the Street or Lane of Note.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
For Party-wall and Gabel-end	20	17	2
For the other	20	17	2
For the wall front and reer	10	08	0
For three Chimneys, Mantle-trees, Torsels, and Hearth-Timbers	07	10	0
For Shop-windows, and painting	07	00	0
For four floors, and penthouse	13	00	0
For raftering, Tyling, and for Tyling the penthouse	10	04	0
For paving the Cellar	00	14	0
For four pair of Stairs and painting	08	00	0
For a partition round the Stair-case in the			

second

Purchaser and Builder.

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	<i>l.</i>	<i>s.</i>	<i>d.</i>
second and third Story; and for Lathing, plaistering, Rendring and Sizing	02	03	0
For three Doors, Locks, Hinges, and painting	02	00	0
For Window-frames, painting, Lintals, Glaziers-work, and Smiths-work for Casements and Bars in the Cellar	06	02	4
For plaistering against the Party-walls, and in the front and rear in the Garret	05	08	6
For Mundilions and painting	00	18	0
For three hundred weight of Lead taken up in this Building	02	14	0
Building cost in all	117	16	2
Deduction for Party-walls,	20	17	2
Remainder	96	19	0

The Art of Architecture to be used in any sort of Building in High Streets or Lanes, consists onely in the placing of Chimneys and Stair-cases, for convenience of Trade, or otherwise; for which purpose I have set you down Chimneys and Stair-cases of most sorts: but especially of those sorts which are most in use for City-Buildings.

A TABLE of the Rate of Materials as the Buildings last mentioned are computed at.

Bricks at Sixteen shillings a Thousand.

Lime at ten shillings an Hundred.

Sand at three shillings a Load.

Timber, both Fir and Oak, at two pound fifteen shillings a Load.

Deal-Boards from ten to twelve inches broad, and about ten foot long, at seven pounds ten shillings an Hundred.

Tyles

Tyles at one pound five shillings a Thousand.

Lathes at one shilling eight pence a Bundle.

For Lathing, plaistering, Rendring, and sizing a yard,
one shilling two pence.

For Lathing and plaistering, Ten pence.

For plaistering and sizing, Six pence.

For Iron Balconeyes at five pence, or five pence farthing a
pound.

For Foulding- Casements, fifteen shillings a pair:

For Ordinary Casements, at four shillings six pence a
peice.

For Window-frames, at three shillings a Light.

For Glaffery, at six pence a foot.

For Candilivers, at five shillings a foot Carving.

For painting Lights for windows, six pence a Light.

And Doors, Stairs, and such like, at one shilling a yard.

For Lead wrought, at Eighteen shillings an Hundred.

So that as Materials rise and fall, the Builder may in-
crease or abate in his Computation.

Since that it is not feizable to lay down a Platform for
every mans occasion, without swelling this small Trea-
tise to a Volume, I shall in its due place set down some
few Rules whereby any man may take an exact Survey
of any superficies, and measure Timber or any solid Bo-
dy, and so be able to Compute his Building himself, and
find out the Charge of any sort of Building, whether it
be for Ware-house room (which must have very strong
Floors, by reason of the great weights which they usu-
ally bear) Brew-houses, Wharfs, or Works of what kinde
soever.

Least sort of Building.

There is other sort of Buildings mentioned in the Statute, which is for By-Alleys, Lanes, By-Courts, and such places; this sort of Building is to be but two Stories high, besides Cellars and Garrets. But finding by the Lord Mayor, Court of Aldermen, and Common-Councils Declaration on the one and twentieth day of March, 1666, That most of the Streets, Lanes, and Alleys in London are made either high Streets, or Lanes of Note, I shall desist to lay you down any Platforms for this sort of Building, or to make any Valuation thereupon; but shall set down how, and after what manner they ought to be built, and shall leave the Computation thereof to the Proprietor, by the Rules before and hereafter mentioned.

The Cellars are to be 6 Foot and a half.

The first Story

9½ Foot.

The second

9½

Thickness of Walls in front and rear, to be two Bricks to the first Story, and from thence to the Garret one brick and a half, and in the Garret one brick. Party-walls to be of the thickness of one brick to the Garret, and in the Garret one brick: but it is convenient that the Party-wall in the Cellar should be two bricks thick.

Scant-

Scantlings for Timber for this sort of Building.

For the Floors.

Feet

{ Summers under	15	12	} inches	{ 8 } inches
{ Wall-Plates	7	7		

For the Roof.

Principal Rafters under	15	Foot	{ at foot 8 } inches
			{ at top 5 } inches

Single Rafters, four foot and three inches.

Length Thickness Depth

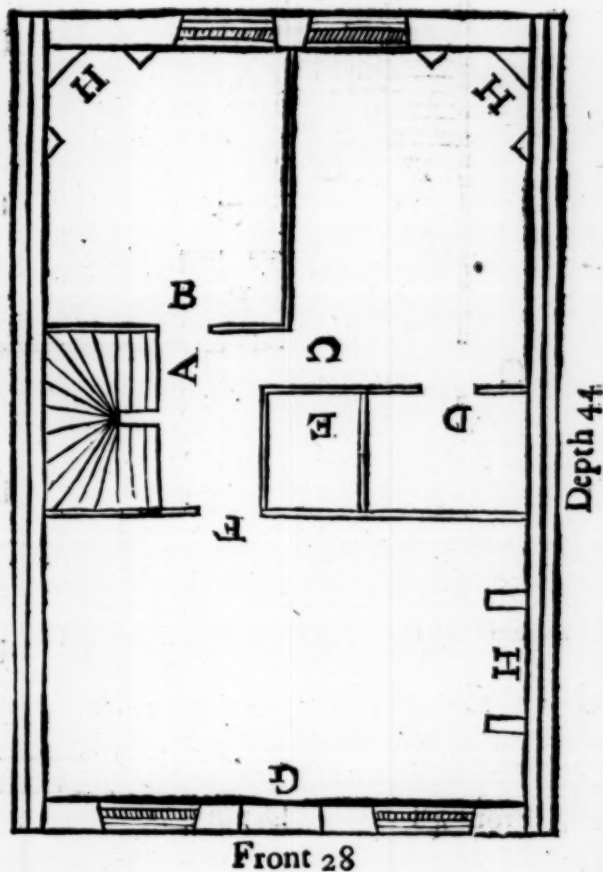
Joynts to	10	3 } and { 7 } inches
Garret-Floors		

I have observed in the City, that where there should be such Buildings as these, the Builders do commonly build them three Stories high; they esteeming these Houses as Mansion-houses, and so build the same as they please.

The fourth sort of Buildings.

The fourth sort of Buildings being great Mansion-Houses, and not fronting High Streets, or Lanes of Note, are left to the discretion of the Builder, so that they exceed not four Stories. I shall set down two or three Platforms, without any Computation on the same, for this sort of Houses.

A Platform for the second Floor for a large House
in a high Street or Lane of Note, under
which there is suposed to be a Shop
or Ware-house.

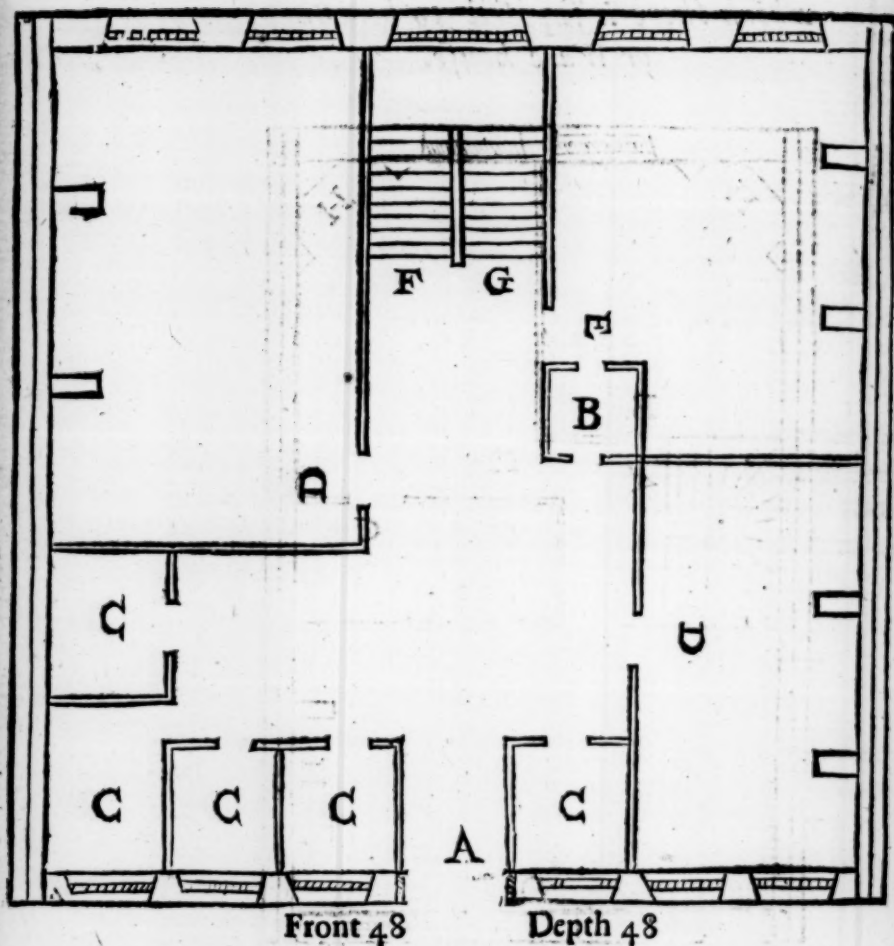


A The Stairs. B The Parlor. C The Kitchen. D A
Larder, or Buttery. E An Open Newel from the top
of the House, giving light to the Stairs and Buttery. F
The Dining Room. G The Passage into the Balconey.
H The Chimneys.

L

A

A Platform for a Tavern

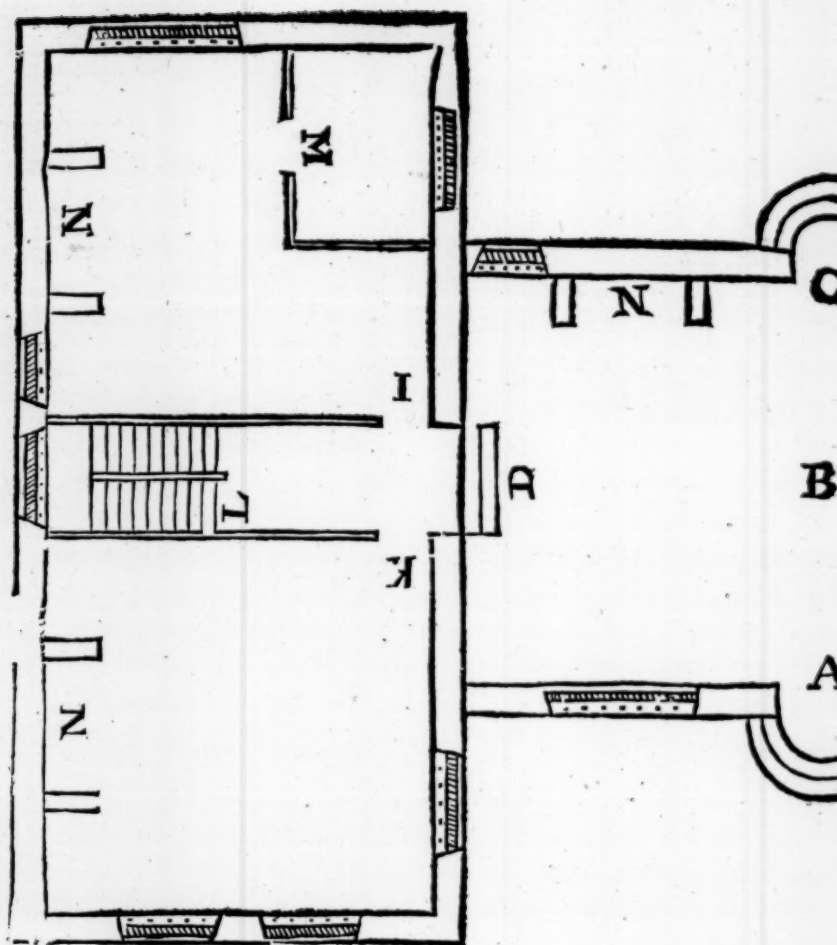


A The Door and Entrance into the same. **B** The Bar.
C Small Drinking-rooms. **D** Larger Drinking-rooms.
E The Kitchen. **F** A Pair of Hearth-pace Stairs. **G**
 The Entrance into the Cellars.

In the second Floor you may either make four large
 Rooms, or else two Rooms, or one very large.

Scale

A Platform for a



25

Front in

- A The Passage into the Hall.
- B The Hall.
- C The Passage into the Garden.
- D and E Steps entering into the Parlors and Kitchen.
- F The great Parlor.
- G The little Parlor.

H

I

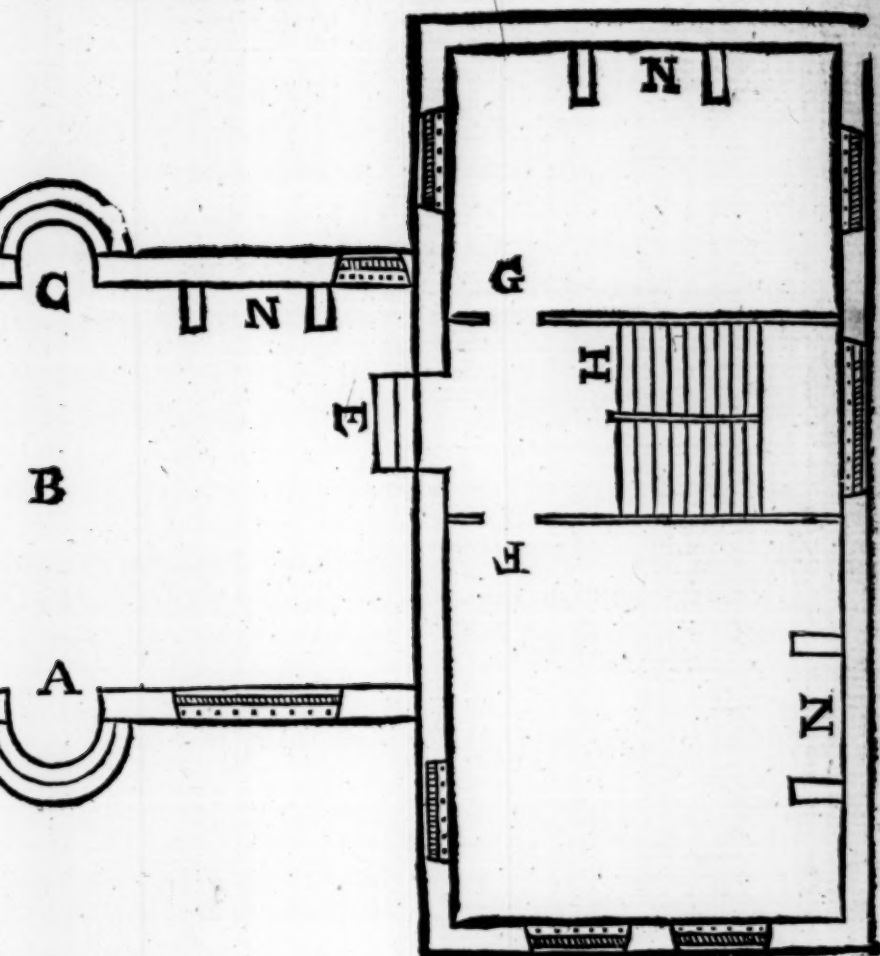
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r a Mansion-house.



nt in all 90.

25

- H The great pair of Stairs leading up to the Dining-room over the Hall.
- I The Kitchen.
- K A place for a Brew-house, Wash-house, or the like.
- L The back-pair of Stairs.
- M A Pastery, or Larder.
- N The Chimneys.

[Place this between 146 & 147]



Scale of Feet.

L 2

AD-



ADVICE

TO THE

COUNTRY BUILDER.

THese last Platforms for Mansion-houses, may serve for Mansion-houses to be built in the Countrey. It will be necessary for the Countrey-Builder, if he build his House for his Summer and Winter Abode, to regard that such Rooms as are intended for a Summer Residence be large and lightforn; and his Winter-Rooms more contracted, with fewer Windows. If he build his Seat for the Summer onely, he may imitate some sort of Fowl, who change their abode in the Winter.

Houses being made to inhabit, and not to gaze on, Conveniences ought to be preferred before Ornaments and Uniformity; although both may be regarded, where they may be had. Let him place his Seat where there is usually a wholsom and equal Air, and where there is good Ways, good Markets, good Neighbours, Conveniency of Water, near the Church, good Prospect, store of Fuel, Shade, and Shelter; near places for Hawking and Hunting, and other Recreations, near and convenient for his business.

Let there be on the North and East of the House a Hill, or a Grove of high Trees, for shelter against the violent Storms and Winds which come from the North and East, from off the Continent, so that the Air doth partake of the cold Steams which are breathed out of the Earth; this being one cause of the great Frosts which.

which are observed to be when the Winds are in any of these two Quarters : The Winds being in the South or West , do partake of the steams which come from the salt water , which are warmer ; so that for the most part when the Winds do turn to these Quarters, it's warmer, and often produces Thaws.

Let there be adjoining to the House a convenient Garden, it being the purest of humane pleasures, and a great refreshment to the spirits of man, without which Buildings are but gross Handy-works : it is decent to have fine Gravel Walks in the Garden, suitable to every Moneth in the year ; Each side of which to be ordered and set with such things as are then in season. For *November, December, and January*, such things which are green all Winter ; As Juniper, Bays, Cypress-Trees, and Hedges of Cypress, Lavender, Holly, Ivy, Lawrel, Pine-Apple-trees, Eugh, Rosemary, Orange-trees, and Lemmon-trees, if they be stoved. Latter end of *January, February and March*, Primroses, the Red, Blew, and Yellow ; Crows-Toe , purple-colour ; Blew and White Violets, the Dazy, the Yellow and White Daffidil. Several Trees in blossom, as Peach-trees, Almond-trees, Sweet-briar, and such like. For *April, May and July*, Flower-de-luces, Cowslips, Stock-Gilliflowers, Rosemary-flowers, Tulippa, Lilies of all sorts, Pincks of all sorts, Carnations, Roses of all kinds, Honey-suckles, Strawberries, Columbine, Marygold, Jessime-tree with flowers, most sorts of Trees in blossom or in fruit. In *August, September, and October*, most sorts of Pears, Apples, Grapes, Peaches, and other Summer and Winter Fruit, are grown to their perfection, and ripe. Some Flowers are for sight, and not smell ; as the Tulippa, Daffidil, and others. Others for smell onely, as the Rose, Pinck, Violet, and such like. It is a great refreshment to have plenty of those Flowers, of which the Air doth partake of their odours as they grow, as Violets, which come in *April* ; and latter end of *August*, Wall-

flowers, the Musk-Rose, Honey-suckles, Pincks, Gilli-flowers, and such like.

Where the Country Builder cannot make election of a Place where he may have all these Conveniences, it is good for him to get as many of them as he can.

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The Third Book.

Shewing how to dispose and proportion the several *Rooms* (as *Halls, Galleries, Chambers, &c.*) in any *Building*. Also how to place the *Doors, Stairs, Windows, Chimneys, &c.* in their due and convenient places; and to proportion them in every *Story* answerable to their respective *Rooms*, in any *Building*, great or small.

Unto which is added,

The Art of *Measuring Superficies*, as *Board, Glass, &c.* and *Solids*, as *Timber, Stone, &c.* either *square, round, or Tapering*. With *Tables* ready cast up to those purposes.

A L S O,

The way and manner how to *measure* the Works of the several *Artificers* belonging to *Building*, as the *Carpenters, Bricklayers, Masons, Plaisterers, Joiners, Painters, and Glaziers*; by the most exact and absolute ways yet known or practised. With the several *Cautions* to be observed in the *Mensuration* of any of them.

IN the two former parts you have ample and satisfactory Rules and Directions given you, First, how to purchase any Land or Ground for building. And secondly, you have an inspection given you into the several Materials belonging to building, with dire-

ctions how to make *choice* of them, and their *worth* or *valuation*. And also of the *quantity* of each kind that will serve for the erection of any *Fabrick* great or small. You have there likewise given you the *measures* by which Workmen work, as by the *Square*, the *Rod*, the *Foot*, the *Yard*, &c. with the Wages due (or accounted reasonable) for the same; whether the work be performed by *Measure*, in *Gross*, or by *Task*: So that the Master-builder may (before he begin his work) give a reasonable guess or estimate of his whole Charge, before he begin the same; and so make a bargain with one or several Workmen, without any great damage to either. And I do know by experience, that an ingenious and able Workman had rather deal with a man that hath some inspection into what he is employed in, than with an *Ignoramus* that knows no more than how to pay for his Work when it is done, or before that (when it is too late) to take the advice of some other person (possibly) as wise as himself.

Being thus far informed, by what is delivered in the two first parts, it is necessary, in the third place, that the Builder knows not only what quantity of any Material will serve his turn, but whether he hath the just quantity of that Commodity for his money or not; and when his Building is finished, whether there be in it the like quantity of *squares, rods, feet, yards*, or the like, of each kind, as is given in to him: for both in the buying of *Materials*, as *Stone* and *Timber* principally, and in *measuring* of work compleated, many Gentlemen are most egregiously cheated, by relying upon the honesty, and putting too much confidence in some that they may employ. To prevent which, the Undertaker of any building, and the Workman also, in both those particulars, may in this Third part, finde real and ample Satisfaction.

CHAP. I.

Of the Proportions of Rooms ; as Galleries, Halls, Chambers, &c. and of their heights. Also of Principal Gates, Doors, Windows, Chimneys, Stairs, &c.

I. For Galleries.

THe length of them ought never to be less than five times their breadth, nor more than eight times.

For the height of Galleries. If you divide the breadth into three parts, two of them may be for the height ; or, if higher, divide the breadth into seven parts, and take five of them for the height : both which are very good proportions.

II. For Halls.

The length of them ought to be three times the breadth, or somewhat more.

For the height of Halls. They may be in the same proportion as the height of Galleries were to their breadths.

III. For Chambers.

The length of a well-proportioned Chamber, may be the breadth and half the breadth thereof, or somewhat less ; but that length it ought never to exceed.

For the height. Divide the breadth into four parts, and three of them will be a convenient height.

IV. Of

IV. Of Principal Gates.

Principal Gates for entrance, through which Coaches and Waggons are to pass, ought to have in breadth from seven to ten foot, or upwards.

For their height, it ought to be the full breadth and half at least: And for common Gates in Inns, where loads of Hay are to go under, they may be twice the breadth high.

V. Of inner Doors.

In small Buildings the Doors within ought never to be less than two foot and half broad, and five and a half high.

Doors from three to four foot broad, must have twice their breadth in height.

VI. Of Windows.

The apertures of Windows in middle Buildings, must have four foot and an half or five foot between the jaums; and in greater Buildings, unto seven or six and an half: and their height must be double to their breadth at the least. And if you would have them very comely in high Rooms, they may be double their breadth in height, and a third, a fourth, or half their breadth more.

According to these proportions of Windows for the first story, must all the rest of the Windows in the upper stories be for the breadth; but for their height they must diminish: for the second story may be one third part lower than the first, and the third story one fourth part lower than the second.

VII. of

VII. Of the placing of Doors and Windows.

1. If possible, let the Doors be right over one another, so that one may see from one end of the house to the other ; which is very graceful and convenient : for 'tis cool in Summer, and hath other good conveniences.

2. Let all the Windows be equal in rank, so that those on the right hand of the door may be equal to those on the left hand ; and those above may be right over those below.

3. It is not onely secure, but very ornamental , to turn Arches over doors and windows, which do discharge and keep the doors and windows from bearing over-much weight.

4. See that the Windows be at a convenient distance from the Angles of the building on either side : for that part ought not to be weak, which is the grand support of the whole.

VIII. Of Chimneys.

Chimneys in Halls ought to be within the work six or seven foot ; and in very great Buildings, eight foot between the jaums ; and be set in such a place as may correspond with the Chimneys in the upper stories ; and if possible, let it face the entrance into the Hall.

The height to the Mantletree ought not to exceed five foot ; and let the projecture of the jaums not exceed three foot, or rather but two foot and an half.

For Chimneys in Chambers, they may be not above five and a half or six foot between the jaums. Their height four foot, or four and a half from the Plate to the Mantletree, and their projecture not above two foot.

IX. of

I X. Of Funnels of Chimneys.

1. Let the Funnels be carried through the roof, three, four, or five foot, that they may carry the smoak into the air.

2. Let the Funnel be neither too wide, nor too narrow : if too wide, the wind will drive back the smoak ; if too narrow, the smoak is repulſed and beaten back. Wherefore the Funnels for great Chimneys may be fourteen or fifteen inches, and for Chamber-Chimneys ten or eleven.

X. Of Stair-caſes.

Great care ought to be had in the well-placing of the Stair-caſe ; and ordinarily, the Stairs are placed in the Angles, or on the Wings, or middle of the front : but this laſt ſituation is onely uſed in great buildings.

Three openings are neceſſary to all Stair-caſes.

1. The Door-way, which leads to them ; which ought to be ſo placed, that the greater part of the building may be ſeen before you come at the ſtairs : and yet ſo placed, that it may be obvious to ſtrangers to find out.

2. The Window or Windows which give light to the Stairs : where (if there be but one) let it be placed in the middle, ſo near as you can, to the end that the whole Stair-caſe may be enlightned.

3. The landing of the Stairs, for the ready and convenient entrance into the Rooms above ; and it ought to be large and ſpacious.

In brief, Stairs ought to be ſpacious, light, and eaſie in aſcent ; all which conveniencies are great inducements for ſtrangers to aſcend them.

XI. Of the height and breadth of Steps.

Steps of large Stairs must never be less than four inches, nor more than six inches high.

Their breadth ought not to be less than one foot, nor broader than fifteen or sixteen inches.

In making of Steps of Stairs, this Rule ought to be observed, *viz.* Not to make the number of steps even; to the end, that beginning to ascend with the right foot (as all men are most inclinable to do) they might end with the same foot also.

CHAP. II.

Of the Mensuration of Superficies and Solids.

There are several ways by which this Work may be effected, *viz.* either *Arithmetically*, or *Instrumentally*. The *Instrumental* ways are many; but they being (the best of them) uncertain in their performance, I shall wholly reject, and shew how the same is to be performed by the Pen *Arithmetically*. And of *Arithmetical* ways there are two kinds, *viz.* one *Vulgar*, the other *Decimal*. The *Vulgar* way is by *Cross-Multiplication* (as they call it) of feet by feet, which produce feet: Inches by feet, which produce feet and inches: And lastly, inches by inches, which produce inches and twelfths of inches.

The *Decimal* way is by reducing feet and inches into *Decimal Fractions*, and for universality of Mensurations, exceedeth any other: but for that it requireth a new kind of *Arithmetick* (which all persons are not acquainted

ted with) I shall therefore teach the common way used by all *Artificers* and common *Measurers*, though my self do never use it.

And in order therunto, I shall first shew the way how *Cross-Multiplication* is to be performed; that is, how *feet* and *inches* are to be multiplied by *feet* and *inches*.

Of Cross-Multiplication.

Let it be required to multiply 9 foot 3 inches by 7 foot 6 inches.

Feet.	X	Inches.															
9		3															
7		6															
<div style="display: flex; justify-content: space-between;"> <div> <p>Set the numbers to be multiplied one under another, with a <i>Cross</i> between them, as you see in the margine; and drawing a line under them, begin your Multiplication in this manner:</p> <p><i>First</i>, Multiply feet by feet, saying, 7 times 9 is 63 foot: set 63 under the line in the place of feet. <i>Secondly</i>, Multiply as the <i>Cross</i> directs you, saying, 9 times 6 is 54 inches, which is 4 foot and 6 inches: set the 4 feet under feet, and the 6 inches under inches. <i>Thirdly</i>, Multiply <i>cross</i> again, saying, 7 times 3 is 21 inches, that is, 1 foot 9 inches: set the 1 foot under feet, and the 9 inches under inches. <i>Fourthly</i>, Multiply inches by inches, saying, 3 times 6 is 18, that is, $\frac{18}{12}$ of an inch, which is one inch and a half, or $\frac{6}{12}$: which set under inches. <i>Lastly</i>, Draw a line, and adde all together, and you shall find the sum to be 69 foot, $4\frac{1}{2}$ inches.</p> </div> <div style="text-align: right;"> <table border="0"> <tr> <td style="text-align: right;">63</td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">4</td> <td></td> <td style="text-align: right;">6</td> </tr> <tr> <td style="text-align: right;">1</td> <td></td> <td style="text-align: right;">9</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right; border-top: 1px solid black;">18</td> </tr> <tr> <td style="text-align: right; border-top: 1px solid black;">69</td> <td style="text-align: center;">—</td> <td style="text-align: right; border-top: 1px solid black;">4 $\frac{1}{2}$</td> </tr> </table> </div> </div>			63			4		6	1		9			18	69	—	4 $\frac{1}{2}$
63																	
4		6															
1		9															
		18															
69	—	4 $\frac{1}{2}$															

Again,

Again,

Let it be required to multiply 36 foot 7 inches, by 16 foot 10 inches.

Feet.	X	Inches.
36		7
16		10
<hr/>		
576		
30		0
9		4
		5 $\frac{10}{12}$
<hr/>		
615	—	9 $\frac{10}{12}$

The numbers to be multiplied being set, as in the margine, 36 foot multiplied by 16 foot, produceth 576 foot : which set under the line in the place of feet. Then 36 foot by 10 inches, produceth 360 inches, which is 30 foot, no inches : set 30 under feet. *Thirdly*, 16 foot by 7 inches, produceth 112 inches; which is 9 foot 4 inches : set 9 foot under feet, and 4 inches under inches. *Fourthly*, 10 inches by 7 inches, is 70 twelfths of inches; which is 5 inches and $\frac{10}{12}$ of an inch : which set under inches. *Lastly*, A line drawn under, and all added together, the sum is 615 foot, 9 inches, and $\frac{10}{12}$ of an inch, which is almost one whole inch : And so much doth 36 foot 7 inches, multiplied by 16 foot 10 inches, produce. And let this suffice for this manner of Cross-Multiplication.

Of the Mensuration of Superficies.

Superficial or flat Measure, is such as *Board, Glass, Pavement, Hangings, &c.* And before any of these can be measured, it must necessarily be taught how to measure any plain superficial figure, as a *Square, Long Square, or Parallelogram, Triangles* of all kinds, *Circles*, parts of *Circles, Arches, &c.* Examples of all which, do here follow.

I. *How*

I. How to measure any Superficies which is perfectly square.

Let there be a Square Floor or Pavement, the sides whereof are each of them 42 foot and 6 inches; and it is required to know how many square or superficial feet is contained therein?

Feet.	Inches.
42	X 6
42	X 6
<hr/>	

84

168

1764

21

21

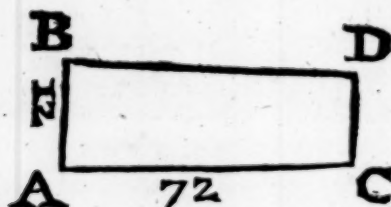
3

1806

3

Multiply 42 foot 6 inches, by 42 foot 6 inches (as is before taught, and as you see done in the margine) and the Product will be 1806 foot and 3 inches, or one quarter of a foot. And so many superficial feet doth that Floor or Pavement contain.

II. How to measure a long Square, or Parallelogram.



Let the figure A B C D be a Pavement of Free-stone, whose length is 72 foot, and breadth 12 foot, how many feet is contained therein?

72

12

144

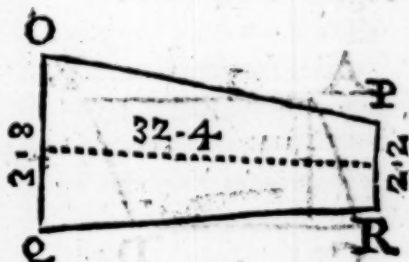
72

Multiply 72 by 12, and the Product will be 864; and so many superficial feet are contained in that Pavement.

864

III. How

III. How to measure a long Superficies which is broader at one end than at the other.



Let the figure O P Q R be a Superficies whose length is 32 foot 4 inches, the breadth of the greater end O Q 3 foot 8 inches, and the breadth of the lesser end 2 foot 2 inches; and let it be required to know the superficial feet contained therein.

First adde the breadths of both the ends together, namely, 3 foot 8 inches, and 2 foot 2 inches, and the sum of them is 5 foot 10 inches, the half whereof is 2 foot 11 inches; which being multiplied by 32 foot 4 inches, (the length) the Product will be 94 foot 3 inches, and $\frac{8}{13}$ of an inch: And so many foot are contained therein.

Feet.	Inches.
32	4
2	11
<hr/>	
64	
29	4
0	8
0	3 $\frac{8}{13}$
<hr/>	
94	3 $\frac{8}{13}$

I V. How to measure a Rombus or figure lying in a Diamond-form, whose sides are parallel, but form not right Angles, such as is the Figure A B D C.



Draw a Perpendicular line from the Angle A, to the line C D, and multiply the Perpendicular line by the line C D, or A B, and it will shew the content.

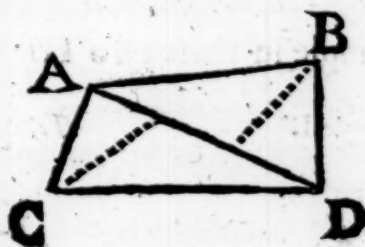
Let the line A B, or A C be 26 foot 3 inches, and the Perpendicular line 11 foot 7 inches, the superficial feet are required.

Multiply 26 foot 3 inches by 11 foot 7 inches, the Product will be 304 foot and $\frac{9}{12}$ of an inch for the content.

Feet.	Inches.
26	3
11	7
<hr/>	
26	
26	
<hr/>	
286	
2	9
15	2
	1 $\frac{9}{12}$
<hr/>	
304	$\frac{9}{12}$

V. How

V. *How to measure a Trapezia, or figure whose Angles are not right, nor sides equal, as is the Figure ABDC.*



Draw a Diagonal line from A to D, and from the Angles B and C draw two Perpendicular lines to the Diagonal line A D.

This done, measure the Diagonal line A D, and suppose it to be 46 foot 6 inches; and let one of the Perpendiculars be 9 foot 10 inches, and the other 12 foot 4 inches: These two added together, make 22 foot 2 inches, the half whereof is 11 foot 1 inch; which being multiplied by 46 foot 6 inches, the length of the Diagonal line A D, the Product will be 515 foot 4 inches and $\frac{6}{11}$ of an inch, for the content of the Figure A B C D.

Feet. Inches.

46	X	6
11		1
46		
46		
506		
5		6
3		10
		0. $\frac{6}{11}$
515		4. $\frac{6}{11}$

V I. *How to measure Triangles.*

All Right-lined Triangles (of what kind soever) are measured by this

General Rule:

Multiply half the length of the Base by the length of the Perpendicular.

M 2

Or,

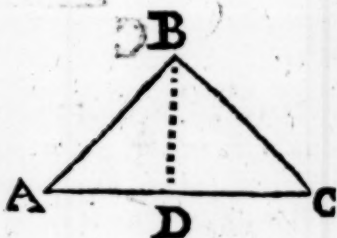
Or,

Half the length of the Perpendicular multiplied by the whole length of the Base, the Product of either shall give the Superficial content of the Triangle.

Example in these two Triangles.

Triangle I.

Triangle II.



In the first Triangle A B C, let the Base thereof, B C, be 16 foot 8 inches, and the Perpendicular 6 foot 5 inches. Now if you multiply 8 foot 4 inches (half the length of the Base B C) by 6 foot 5 inches, the length of the Perpendicular A D; the Product will be 53 foot, 5 inches, and $\frac{5}{16}$ parts of an inch.

Feet.	X	Inches.
8		4
6		5
48		
2		0
3		4
53		
		$\frac{5}{16}$
53		$\frac{5}{16}$

And,

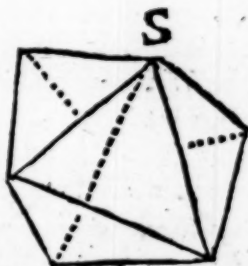
If you multiply 16 foot 8 inches (the whole length of the Base) by 3 foot 2 inches and a half (which is half the length of the Perpendicular) the Product will be the same.

In the second Triangle B A C, let the Base thereof, A C, be 24 foot 10 inches, and the Perpendicular B D 18 foot 8 inches; if you multiply 9 foot 4 inches (half the

the Perpendicular) by 24 foot 10 inches, (the length of the Base) the Product will be 231 foot, 9 inches, and $\frac{4}{15}$ parts of an inch. And the Product would have been the same, if you had multiplied 18 foot 8 inches, (the whole Perpendicular) by 12 foot 5 inches, (half the length of the Base) according to the General Rule for all Triangles whatsoever.

Feet.		Inches.	
24	X	10	
9		4	
<hr/>		<hr/>	
216			
8		0	
7		6	
		$3\frac{4}{15}$	
<hr/>		<hr/>	
231		$9\frac{4}{15}$	

VII. *How to measure multangular, or many-sided irregular Figures, such as is this irregular or unequal-sided Figure, noted with S.*



If the figure which you are to measure, do consist of many unequal sides and Angles, as doth this Figure S, you must first reduce the same figure into several Triangles, by drawing of Diagonal lines from Angle to angle; and then by letting Perpendiculars fall from the Angles opposite to those Diagonal lines, you may measure them as so many particular Triangles: the contents of all which, being added together, will be the content of the whole Figure.

And in the reducing of these irregular Figures into
M 3 Triangles,

Triangles, this Note will be worth your observing, viz. The number of Triangles into which any irregular Plat or Figure may be reduced, will be less by two than the number of the sides of the irregular Figure: As may be seen in this Figure S; where the number of Triangles are 4, and the number of Sides are 2 more, namely 6: and it will be so in all irregular Plats or Figures.

If the number of Sides be	{	4	}	the number of Triangles will be	{	2	}
		5				3	
		6				4	
		7				5	
		8				6	
		9				7	
		10				8	
		11				9	
		12				10	
		13, &c.				11, &c.	

VIII. Of the mensuration of Circles, and parts of Circles.



The diameter of every Circle hath such proportion to the circumference of the same Circle, as 7 hath to 22; from whence may be performed the following necessary and useful Conclusions, viz.

1. The

1. The Diameter of a Circle being given, to finde the Circumference.

Let the diameter of the given Circle be 14. Multiply the diameter 14, by 22, the product will be 308; which divided by 7, the quotient is 44: and so much is the Circumference of that Circle whose diameter is 14.

2. The Circumference of a Circle given, to finde the diameter.

Let the Circumference of a Circle be 44. Multiply 44 by 7, the product will be 308; which divide by 22, and the quotient will be 14: and so much will the diameter of a Circle be, whose Circumference is 44.

3. The Diameter of a Circle being given, to finde the Area, or superficial content of that Circle.

Let the diameter of the given Circle be 14. Multiply 14 by 14, the product will be 196; this 196 multiplied by 11, produceth 2156; and this number divided by 14, giveth in the quotient 154 for the Area, or superficial content of the Circle.

4. The Circumference of a Circle being given, to finde the Area.

You must first finde the diameter by the second before-going, then one quarter of the Circumference multiplied by the diameter, gives the Area; as 11 (one quarter of the Circumference) multiplied by 14, the diameter, giveth 154 for the Area, as before.

The measuring of a Semi-circle, is the multiplying
M 4 half

half the diameter, which is 7, by a quarter of the Circle, which is $\frac{1}{4}$: so that the content of the Semi-circle is $7\frac{7}{8}$.

The measuring the quarter of a Circle (which is a Quadrant) is the multiplying half the diameter, which is seven, by the eighth part of the Circle, which is five and a half ; which shews the content of the Superficies to be thirty eight and an half.

Of the Mensuration of Solids.

A plain or superficial Measure consisted of two dimensions, namely, *length* and *breadth* ; so *solid Measure* consists of three dimensions, namely, *length*, *breadth*, and *thickness*.

I. How to measure a Cube.



A Cube is a solid body, consisting of six square plains, whose sides and angles are all equal, as is a Die.

Suppose a piece of Stone or Timber to be in such a form, and that every side thereof were 2 foot 9 inches long, how many solid feet of Stone or Timber is there in such a Cube ?

First multiply 2 foot 9 inches (the side in it self, that is, 2 foot 9 inches) by 2 foot 9 inches, and the product will be 7 foot, 6 inches, and $\frac{9}{16}$ of an inch ; and is the Area or superficial

Feet. Inches.

2 X 9

2 X 9

4

1 6

1 6

6 $\frac{9}{16}$

7 — 6 $\frac{9}{16}$

The City and Country

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ficial content of one of the flat sides. And this product multiplied again by the side 2 foot 9 inches, produceth 20 foot, 9 inches, $\frac{2}{11}$ of an inch : and so much solid Stone or Timber is contained in that Cubical piece.

But if this way of multiplying by Fractions seem difficult, it may be performed by Multiplication and Division of whole numbers onely, in this manner.

The side of the Cube given being 2 foot 9 inches, turn the whole side into inches; which is 33 inches. Multiply 33 by 33, and the product will be 1089 inches for the superficial content of one of the flat sides. And this multiplied again by 33, the side, produceth 35937: And so many solid inches are contained in the Cube, whose side is 2 foot 9 inches, or 33 inches.

Now to know how many solid feet are contained in the Cube, you must divide 35937 by 1728, (because there are so many Cubical inches in one solid foot) and the quotient will be 20 foot, and 1377 remaining; which divide by 432, (the number of solid inches in one quarter of a foot) the quotient will be 3 quarters of a foot, and 81 remaining. So that in this Cube is contained 20 foot, 3 quarters, and 81 inches.

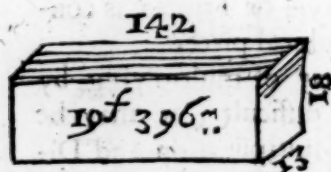
Feet.	Inches.
7	$6\frac{3}{4}$
2	9
<hr/>	
14	
1	0
5	3
	$6\frac{2}{11}$
20	$9\frac{2}{11}$

33
33
<hr/>
99
99
<hr/>
1089
33
<hr/>
3267
3267
<hr/>
35937

(3	
$\times 187$	
35937	(20
$\times 7288$	
172	
<hr/>	
$\times 81$	
$\times 377$	(3
432	

II. How

I I. How to measure a Parallelepipedon, or long Cube.



Let there be a long-squared piece of Stone or Timber (or other solid matter) whose length let be 142 inches, its breadth 18 inches, and depth 13 inches; and let it be required to finde the number of solid feet contained therein.

First, Multiply the breadth 18, by the depth 13, the product is 234 for the superial inches at the end of the Piece.

Secondly, Multiply this 234 by 142 inches, the length of the Piece, and the product will be 33228 inches for the solid content.

Thirdly, Divide 33228 by 1728, the quotient will be 19 solid feet, and 396 inches remaining; which is one quarter of a foot, wanting 36 inches. And so much is the solid content of that Piece.

$$\begin{array}{r}
 18 \\
 13 \\
 \hline
 54 \\
 18 \\
 \hline
 234 \\
 142 \\
 \hline
 468 \\
 936 \\
 234 \\
 \hline
 33228
 \end{array}$$

$$\begin{array}{r}
 (3 \\
 66(9 \\
 \times 396 \\
 2884(6 \\
 33228 \\
 \times 7288 \\
 272
 \end{array}
 \left. \begin{array}{l} \\ \\ \\ \\ \\ \end{array} \right) 19$$

III. How

III. How to measure a Prisme, or long Triangular Solid.



Let the base of the Triangle at the end of the Piece be 32 inches, the perpendicular 21 inches, and the length 108 inches; and let the solid content thereof be required.

First, Multiply 16, the half of the base, by 21, the perpendicular, and the product will be 336 for the Area of the Triangle.

Secondly, Multiply 336 by 108, the length of the Piece, and the product will be 36288, for the solid inches in the whole Piece.

Thirdly, Divide 36288 by 1728, the quotient will be 21, and nothing remaining. So that there is just 21 foot in this solid Piece.

$$\begin{array}{r}
 21 \\
 16 \\
 \hline
 126 \\
 21 \\
 \hline
 336 \\
 108 \\
 \hline
 3688 \\
 3360 \\
 \hline
 36288
 \end{array}$$

$$\begin{array}{r}
 27 \\
 2282 \\
 36288 \\
 27288 \\
 272 \\
 \hline
 \end{array}
 \quad (21)$$

IV. How

I V. How to measure any Regular Solid, consisting of many equal Sides and Angles.



Let the Solid consist of 5 equal sides, each of them being 8 inches ; and let a perpendicular, drawn from the Centre to the middle of any of the sides, be 6 inches, and let the length thereof be 170 inches ; how many solid feet shall such a piece contain ?

The number of sides being 5, and either of them 8 inches, all of them added together make 40 inches, the half whereof is 20 inches. This multiplied by 6, the perpendicular, the product will be 120 for the Area, or superficial Content of the Base. And this being multiplied by 170 inches, the length, produceth 20400 for the solid inches in the whole Piece. And that number divided by 1728, the quotient will be 11 foot, and 1392 remaining : which divided by 432, the quotient will be 3 quarters of a foot, and 96 inches. So that such a Solid will contain 11 foot, 3 quarters, and 96 inches.

$$\begin{array}{r}
 20 \\
 \times 6 \\
 \hline
 120 \\
 \times 170 \\
 \hline
 84 \\
 12 \\
 \hline
 20400
 \end{array}$$

$$\begin{array}{r}
 (3 \\
 11 \text{ } 9 \\
 \times 228 \\
 \hline
 2322 \text{ } 2 \\
 20400 \\
 \hline
 27288 \\
 \times 72 \\
 \hline
 \end{array}
 \quad (11$$

$$\begin{array}{r}
 (9 \\
 20 \text{ } 6 \\
 \times 392 \\
 \hline
 432
 \end{array}
 \quad (3$$

V. If the Butt-end of the Piece do consist of any Irregular form, you must first finde the Area of the Base thereof, (as is taught in the VII. before-going) and that multiplied by the length, shall give the Solidity.



So this Irregular Piece, being measured, will be found to contain 8 foot, an half, and 54 inches; as by the following Arithmetical Work doth plainly appear.

$$\begin{array}{r} 9 \\ 4 \\ \hline 13 \\ 9 \\ \hline \end{array}$$

$$\begin{array}{r} 117 \\ 126 \\ \hline 702 \\ 234 \\ 117 \\ \hline \end{array}$$

117 The Area of the Butt-end.

$$14742$$

$$\begin{array}{r} 2(9\frac{1}{2}) \\ 8 \times 8(8 \text{ foot}) \\ 22722(8) \\ 2728 \end{array}$$

$$\begin{array}{r} 2(54) \\ 8 \times 8(2 \text{ quar.}) \\ 232 \end{array}$$

54 inches.

VI. How

V I. How to measure Cylinders, as round Columns, or the like.



If a Cylinder or Column be 44 inches about, and 306 inches long, how many solid feet are contained therein?

First, by help of the *Circumference*, finde the *diameter*, by multiplying the *Circumference* 44 by 7, and dividing the product thereof by 22; so shall the quotient be 14, for the length of the Diameter.

Secondly, multiply the Diameter in it self; that is, multiply 14 by 14, the product is 196; which multiplied by 11, produceth 2156; which number divided by 14, giveth in the quotient 154, for the Area of the Circle at the end.

Thirdly this Area being multiplied by 360, the length, the product, will be 55440, for the number of solid inches in the Cylinder.

Fourthly, divide these solid inches by 1728, and the quotient will be 32 foot, and 144 remaining; which is just $\frac{1}{12}$ part of a foot: as by the Work appeareth.

$$\begin{array}{r}
 44 \\
 \times 7 \\
 \hline
 308 \\
 \times 8 \\
 \hline
 308 \quad (14 \\
 222 \\
 \hline
 2 \\
 14 \\
 \hline
 14 \\
 \hline
 56 \\
 \hline
 14 \\
 \hline
 196 \\
 \hline
 11 \\
 \hline
 196 \\
 196 \\
 \hline
 2156 \\
 \times 2 \\
 \hline
 272 \\
 2156 \quad (154 \\
 2444 \\
 \hline
 22 \\
 154 \\
 \hline
 360 \\
 \hline
 9240 \\
 462 \\
 \hline
 55440 \\
 (1 \\
 22(4 \\
 366 \\
 2480(4 \quad (32 \\
 55440 \\
 27288 \\
 \hline
 272
 \end{array}$$

VII. How to measure Cones or Pyramids.



Cone.



Pyramid.

The Area of the base of any Cone or Pyramid being multiplied by one third part of the height, is equal to the solid content.

$$\begin{array}{r} 154 \\ 106 \\ \hline 924 \\ 1540 \\ \hline 16324 \end{array}$$

Example :

In this Cone, the Area of the Circle, at the base thereof, is 154 inches, the height of the Cone is 318, one third part thereof is 106 ; by which if you multiply 154, the product will be 16324 for the solid content in inches.

And this divided by 1728, produceth in the quotient 9 foot, and 772 inches, which is a quarter of a foot and 340 inches ; or half a foot wanting 92 inches, the solid content of the Cone in feet.

$$\begin{array}{r} (7 \\ 28(7 \\ 704(2 \text{ f.} \\ 28324(9 \\ 2728 \end{array}$$

$$\begin{array}{r} (3(4(0 \\ 772(9 \\ 432(1 \\ \text{f.} \quad \text{q.} \quad \text{in.} \\ 9 \quad 1 \quad 340 \end{array}$$

For

For the Pyramid.

The Area of the base being 272, and the Altitude 612, one third part thereof is 204; which multiplied by 272, produceth 55488 for the Solidity of the Pyramid in inches.

These inches divided by 1728, produce in the quotient 32 foot and 192 inches, for the solid content in feet.

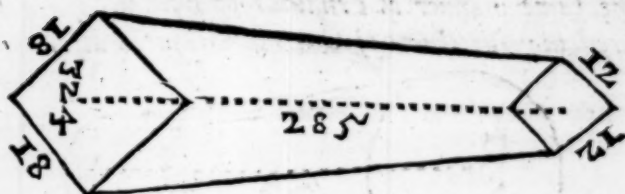
$$\begin{array}{r}
 272 \\
 \times 204 \\
 \hline
 1088 \\
 5440 \\
 \hline
 55488 \\
 (1 \\
 \times 2(9 \\
 360 \\
 2484(2 \quad (32 \\
 55488 \\
 \times 7288 \\
 272
 \end{array}$$

VIII. Of the mensuration of Frustums, or pieces of Cones and Pyramids.

This Problem, as it is the most useful of any other of this kind, so it is the most difficult to be artificially performed; and it is that which makes many Writers of this Subject, to slubber it over in a most artificial manner: and Artificers are willing to imbrace those fallacious ways, rather than take the pains to do it artificially and truly.

I say, that this Problem is the most necessary of any other of this kind, for that all Timber-trees growing, (or being felled and squared) are of this kind, greater at the one end than at the other: Wherefore, for ease in working, (either by the Pen, or by their Gunners line,) they adde both ends together, and take the half for the true square, or else take a square about the middle of the Piece, for the true square: Both which are egregiously false. Wherefore, leaving this discourse,

Let



Let there be a piece of Timber, whose side of the square at the greater end is 18 inches, and at the lesser end 12 inches, and its length 180 inches.

First, Multiply 18, the side of the greater square, in it self; that is, 18 by 18, the product is 324, for the Area of the greater end.

Secondly, Multiply 12 by 12, for the Area of the lesser end.

Thirdly, Multiply 324, the greater Area, by 144, the lesser Area, and the product of that Multiplication will be 46656; whose square Root is 216.

Fourthly, Adde the Area's of the two ends, and this square Root together, their sum will be 684; which multiply by 60, (one third part of the length of the Piece) and the product will be 41040, for the solid or cubical inches in the whole Piece.

Lastly, Divide 41040 by 1728, the quotient will be 23 foot, and 1296 remaining; which divide by 432, (the inches in one quarter of a foot) and the quotient will be 3 quarters, and no odd inches remaining. So that this Frustum of a Pyramid, or piece of tapering Timber, contains 23 foot, and 3 quarters of a foot.

$$\begin{array}{r}
 18 \\
 18 \\
 \hline
 144 \\
 18 \\
 \hline
 324
 \end{array}$$

$$\begin{array}{r}
 12 \\
 12 \\
 \hline
 24 \\
 12 \\
 \hline
 144
 \end{array}$$

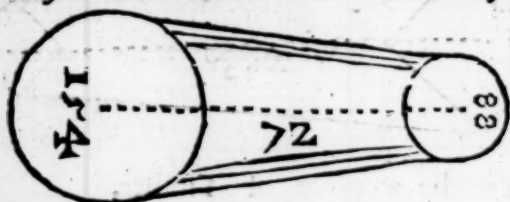
$$\begin{array}{r}
 324 \\
 144 \\
 \hline
 1296 \\
 1296 \\
 \hline
 324 \\
 \hline
 46656
 \end{array}$$

$$\begin{array}{r}
 324 \\
 216 \\
 \hline
 144 \\
 684 \\
 60 \\
 \hline
 41040
 \end{array}$$

$$\begin{array}{r}
 41040 \\
 1728 \\
 \hline
 23 \text{ foot} \\
 1296
 \end{array}$$

$$\begin{array}{r}
 1296 \\
 432 \\
 \hline
 3 \text{ quarters}
 \end{array}$$

In the same manner as Frustums of Pyramids are measured, may Frustums of Cones be measured also.



As in this Cone, the Area of the Circle at the greater end is 154 inches, at the lesser end 88 inches: — These multiplied together, do produce 13552; the square Root whereof is 116 and somewhat more. — Adde the two Area's and this square Root together, the sum of them will be 358. — Multiply 358 by 24, (one third part of the length) the product will be 8592, for the solid inches contained in this Frustum. — Divide these inches by 1728, the quotient will be 4 foot, and 1680 remaining; which divide by 432, and the quotient will be 3 quarters, and 384 inches. And so much doth the Piece contain; which is 5 foot wanting onely 48 inches.

154
88
1232
1232
13552
154
116
88
358
24
1432
716
8592
(168
4720
8592
1728
(38
484
1680
432

And thus have I shewed the most exact and absolute way of Measuring all manner of Superficies, either Regular or Irregular, by help of the Pen, both in whole Numbers, and in whole Numbers and Fractions together, performed by Cross-Multiplication. But lest these ways may prove too difficult to some, and too tedious to others, I shall here adde some Tables of Board and Timber-Measure, ready calculated; which may prove useful to some persons, and not to be neglected or slighted by the more knowing.

A Table shewing how much in length of any Board, Glas, Pavement, Plank, Marble, Footpace, or any other Superficies, will make a Foot square, the breadth thereof being known in Inches; and that from 1 inch broad to 36 inches.

Inches.	The Length of a Foot square.			Inchs.	The Length of a Foot square.		
	Feet.	Inch.	Par.		Feet.	Inch.	Par.
The Breadth of the Board, Glas, or the like, in Inches.	1	12	0 0	19	0	7	6
	2	6	0 0	20	0	7	2
	3	4	0 0	21	0	6	8
	4	3	0 0	22	0	6	5
	5	2	4 8	23	0	6	2
	6	2	0 0	24	0	6	0
	7	1	8 6	25	0	5	8
	8	1	6 0	26	0	5	5
	9	1	4 0	27	0	5	3
	10	1	2 4	28	0	5	1
	11	1	1 1	29	0	5	0
	12	1	0 0	30	0	4	8
	13	0	11 9	31	0	4	7
	14	0	10 3	32	0	4	5
	15	0	9 6	33	0	4	4
	16	0	9 0	34	0	4	2
	17	0	8 5	35	0	4	1
	18	0	8 0	36	0	4	0
The Breadth of the Board, Glas, or the like, in Inches.							

The Use of this Table.

THE Table is so plain and easie, that it needeth not any Explanation: wherefore I will give you an Example or two concerning its Use.

Example 1.

If a Board or Plank, or Pavement, be 16 inches broad, how much in length thereof must go to the making of a square foot?

Find 16 inch. in the first Column of the Table towards the left hand, under the word *Inches*, and right against it you shall finde 090; which is 0 feet, 9 inches, 0 parts: so that just 9 inches in length of that Plank, will make a Foot square. So if you take in your Compasses 9 inches, and run it along the Plank from end to end, so many times as you finde the Compasses to turn, so many foot is there in that Plank.

So if the Plank were 17 foot long, the Compasses opened to 9 inches, would be turned about 22 times, and two third parts more. So that in this Plank there would be contained 22 foot, and $\frac{2}{3}$ of a foot, which is 8 inches.

Example 2.

If a Board or Plank be 22 inches broad at one end, and 18 inches at the other end, and 16 foot long, how many foot is contained therein?

Add 22 inches, and 18 inches, the breadth of both ends together, the sum of them is 40 inches; the half whereof is 20 inches. Wherefore,

Seek 20 inches in the first Column of the Table, and right against it you shall finde 072; which is 0 feet, 7 inches, and 2 tenth parts of an inch: which being taken in your Compasses, and run from end to end of that Board, you will finde the Compasses to be turned about 25 times, and a small quantity more (which will be inconsiderable.) So that in that Board you may conclude there is contained 25 foot.

A Table shewing how much in Length of any squared Stone or Timber, will make a Foot solid, the side of the Square at the end of the Piece being given in Inches from 6 to 36 inches square.

The Length of the Side of the Square in Inches.	The Length of a solid foot in				The Length of the Side of the Square in Inches.	The Length of a solid foot in			
	Square Inches.	Feet.	Inch.	Par.		Square Inches.	Feet.	Inch.	Par.
6		4	0	0	21		0	3	9
7		2	11	2	22		0	3	5
8		2	3	0	23		0	3	3
9		1	9	3	24		0	3	0
10		1	5	3	25		0	2	8
11		1	2	3	26		0	2	6
12		1	0	0	27		0	2	3
13		0	10	2	28		0	2	2
14		0	8	8	29		0	2	1
15		0	7	6	30		0	1	9
16		0	6	7	31		0	1	8
17		0	5	9	32		0	1	7
18		0	5	3	33		0	1	6
19		0	4	8	34		0	1	5
20		0	4	3	35		0	1	4
					36		0	1	3

The Use of this Table.

THe Use of this Table shall be made plain by Examples.

Example 1.

If the side of the Square of any squared Stone or Timber be 17 inches, how much in length thereof will make a solid foot?

Look in the first Column of the Table for 17, and against it you shall finde 0 5 9; which shews that 0 feet, but 5 inches and 9 tenth parts of an inch will make a *solid foot*: Wherefore (from your Rule) take in your Compasses 5 inches and 9 tenths of an inch, and run that from end to end of the Stick or Stone, and so many times as you turn the Compasses, so many foot is contained in it.

And so if the Stone or Timber-tree were 21 foot long, you shall finde it to contain 42 foot, and about half a quarter of a foot.

Example 2.

Let a squared Stone or piece of Timber at the end (or agreed to be about the middle) be 27 inches, how much in length shall make a foot solid?

Seek for 27 in the first Column, and against it in the second you shall finde 0 2 3; that is, 0 feet, but 2 inches, and 3 tenth parts of an inch: And so much in length of that Stone or Timber shall make a solid foot.

A Table shewing how many inches, and hundred parts of an inch in length of any round piece of Stone or Timber-tree, will make a foot solid, the Girt or Circumference thereof being known in inches, from 12 inches (or 1 foot) about, to 100 inches (or 8 foot 4 inches) about.

	100			100			100	
	Inch.	Part.		Inch.	Part.		Inch.	Part.
The Compaſs of the Tree about in inches.	11	179 46	The Compaſs of the Tree about in inches.	41	12 92	The Compaſs of the Tree about in inches.	71	4 31
	12	150 80		42	12 31		72	4 20
	13	125 49		43	11 74		73	4 08
	14	110 79		44	11 31		74	3 97
	15	94 31		45	10 72		75	3 86
	16	84 82		46	10 26		76	3 76
	17	75 14		47	9 83		77	3 66
	18	67 02		48	9 42		78	3 57
	19	60 15		49	9 04		79	3 48
	20	54 29		50	8 69		80	3 39
	21	49 23		51	8 35		81	3 31
	22	44 86		52	8 03		82	3 23
	23	40 90		53	7 73		83	3 15
	24	37 69		54	7 42		84	3 08
	25	34 74		55	7 18		85	3 01
	26	32 12		56	6 92		86	2 94
	27	29 79		57	6 68		87	2 87
	28	27 70		58	6 45		88	2 80
	29	25 82		59	6 24		89	2 74
	30	24 13		60	6 03		90	2 68
The length of a ſolid foot in	31	22 60	The length of a ſolid foot in	61	5 84	The length of a ſolid foot in	91	2 62
	32	21 21		62	5 65		92	2 57
	33	19 92		63	5 47		93	2 51
	34	18 78		64	5 30		94	2 46
	35	17 74		65	5 14		95	2 41
	36	16 76		66	4 98		96	2 36
	37	15 86		67	4 84		97	2 31
	38	15 04		68	4 70		98	2 26
	39	14 28		69	4 56		99	2 22
	40	13 57		70	4 43		100	2 17

The Use of this Table.

THis Table hath the like Use with those before-going, which shall be illustrated by Examples.

Example 1.

If a Column of Stone, or a Timber-tree (being barked and girt about) should contain 36 inches, how much in length thereof shall make a solid foot?

Look in the first Column for 36 inches (the Girt about) and against it, in the next Column, you shall finde 16 inches, and 76 hundred parts of an inch, (which is somewhat above 3 quarters of an inch :) and so much in length will make a solid foot.

Note,

That $\left\{ \begin{array}{l} 25 \\ 50 \\ 75 \end{array} \right\}$ hundred parts is equal to $\left\{ \begin{array}{l} \text{one quarter} \\ \text{half} \\ \text{three quarters} \end{array} \right\}$ of an inch.

Example 2.

If a Tree be 46 inches about, how much in length will make a foot solid?

Look for 46 in the first Column, and against it you shall finde 10 inches, and 26 hundred parts of an inch; which is 10 inches and a quarter, and somewhat more: and so much in length will make a solid foot.

CHAP. III.

Of the Mensuration of the Works of the several Artificers relating to Building.

THe principal *Artificers* relating to *Building* (whose Works are measurable) are the *Carpenter, Bricklayer, Plasterer, Joyner, Painter, Glasier, and Mason*. Of which, some of their Works are measured by the *Square of Ten foot*, others by the *Rod*, others by the *Yard*, and some by the *Foot Solid*, and others by the *Foot Superficial*.

I. Of Carpenters Work.

The Three principal things of *Carpenters Work* in *Building*, are *Flooring, Partitioning, and Roofing*. All which are measured by the *Square of 10 foot* every way : So that every 100 square foot is called a *Square*, be it either *Flooring, Roofing, or Partitioning*.

Examples of all Three.

1. Of Flooring.

If a Floor be 57 foot 3 inches long, and 28 foot and 6 inches broad, how many Square of Flooring is contained in that Room ?

If you multiply 57 foot 3 inches by 28 foot 6 inches,
the

the product will be 1631 foot, $7\frac{1}{2}$ inches; which is 16 square, 1 quarter, and 6 foot: for the $7\frac{1}{2}$ inches in these kind of Works they are not to be regarded.

Note, that $\left\{ \begin{array}{l} 25 \text{ foot is } 1 \text{ quarter} \\ 50 \text{ foot is } 2 \text{ quarters} \\ 75 \text{ foot is } 3 \text{ quarters} \end{array} \right\}$ of a Square.

2. Of Partitioning.

If a Partition or Partitions between Room and Room, should contain in length 82 foot 6 inches, and in height 12 foot 3 inches, how many Square is there in that Partition?

Multiply 82 foot 6 inches by 12 foot 3 inches, and the product will be 1010 feet, $7\frac{1}{2}$ inches; which is 10 square, 00 quarters, and 10 foot: the $7\frac{1}{2}$ inches we reject. And so much is in that Partition.

3. Of Roofing.

It is a general Rule received among Workmen, that, The Flat of any house, and half the flat thereof, taken within the Walls, is equal (or shall serve) for the measure of the Roof of the same house. This way, I say, is generally received, but is not exact in all cases; wherefore sometimes other means (where it may be accomplished) must be used.

If a house, within the walls, be 46 foot deep, and 18 foot broad, how many Square of Roofing will be to cover that house?

Multiply 46 by 18, the product will be 828, the half whereof is 414; which added to 828, the sum is 1242; that is, 12 square, 1 quarter, and 17 foot. And so many Square will be contained in that Roof.

There

There are divers other sorts of Carpenters Works belonging to a Building, and they are measured several ways : As,

Cantaliver Cornice,	Lintale,
Modellion Cornice,	Painthouse Cornice,
Plain Cornice,	Timber-front story,
Guttering,	Brest-formers.
Rail and Ballasters,	Shelfing and Dressing, &c.

All which are measured by the Foot running measure.

There are also

Doors and Door-cases,	Columns and Pilasters,
Window-lights,	Stairs and Stair-cases,
Lutheren-lights with their Ornaments,	Cupuloes, Pediments,
Balconey-doors and Cases,	Girders ends, &c.
Cellar-doors, and Curbs,	

All which are measured by the Piece.

There are other things, but they are such as seldom come in any Bill of Admeasurement, which I here omit.

Note 1. In the measuring of Flooring, that (when you have taken the length and breadth, and cast up the Content of the whole Floor) you do afterwards take the dimensions of the *Well-hole* for the *Stairs*, and *ways* for the *Chimneys*, and cast them up also ; and deduct them out of the Content of the *Flooring*.

Note 2. That in the measuring of *Partitioning*, you make deduction for *Doors* and *Windows* therein, except by agreement they be included, and then you must say, *Doors, Door-cases, and Windows included.*

Note 3.

Note 3. That in the measuring of *Roofing* there is seldom any deductions made: for the *boles* where the Chimney-shafts pass through, the *vacancie* for *Lamberen-lights* and *Skie-lights* are more trouble to the Workman, than the Stuff is worth which would cover them.

II. Of Bricklayers Work.

The Two principal Works in a Building, performed by the Bricklayer, are Tiling, Walling, and Chimney-work; of all which I shall give Examples.

I. For Tiling.

For *Tiling*, they commonly measure that by the Square of 10 foot, as the Carpenters do; so that in a Roof the difference between the Carpenters work in measure will be very little, but the Bricklayers will be most. Besides, the Bricklayer sometimes will desire to have Running Measure for Hyps and Valleys; which in some cases may be allowed, but in most not.

I need not give any Example of this, because it is to be measured as the Carpenters Roof was.

2. For Walling.

Bricklayers do measure their Work by the Rod-square, each Rod containing 16 foot and an half in length: So that one of these Rods in length, and one in breadth, do make a Rod-square, and contains upon the Superficies of the Wall $272\frac{1}{2}$ square feet, as will appear, if you multiply 16 foot 6 inches by 16 foot 6 inch.

There are some other things to be observed in Brick-work, as the reducing thereof to a Standard-measure of one brick and half thick; which shall be made plain by Examples.

Ex-

Example 1.

If a Brick-wall be 192 foot long, and 12 foot high, how many Rod of Brick-work is contained therein ?

Multiply 192 the length, by 12 the height, and the product will be 2204 ; which being divided by 272 and $\frac{1}{4}$, produceth in the quotient 8 rod and 26 foot : and so much doth the Wall contain upon the flat.

Note here, That when I came to divide 2204 by $272\frac{1}{4}$, the product was 8 rod 26 foot, which is the true and exact Result ; but it being somewhat troublesome to divide by Fractions, all Artificers and Workmen are contented to divide by 272 only ; which if this 2204 had been divided but by 272, the quotient would have been 8 rod and 28 foot, which is too much by 2 foot : but because it is the usual way, I shall in the following Examples, divide only by 272, omitting the quarter.

Example 2.

If a Wall (or side of a house) be 24 foot 6 inches long, and 37 foot 8 inches broad, how many Rod is contained therein ?

Multiply 24 foot 6 inches by 37 foot 8 inches, the product will be 922 foot 10 inches, which in this case you may call 923 foot ; which divided by 272, the quotient will be 3 Rod and 107 foot remaining, which is 1 quarter of a Rod, and 39 foot over. For,

$$\begin{array}{r} 68 \\ 136 \\ 204 \end{array} \left. \vphantom{\begin{array}{r} 68 \\ 136 \\ 204 \end{array}} \right\} \text{Foot is } \left\{ \begin{array}{l} \text{one} \\ \text{two} \\ \text{three} \end{array} \right\} \text{quarters of a Rod.}$$

But

But besides this way of measuring of their Brick-work, there is another thing to be considered, viz. the Thickness of the Wall; for all Walls of the same length and height, do not contain the same quantity of Rods: for the thicker the Wall is, the more Rods are contained therein, the Standard for Brick-work being the thickness of *One Brick and half*. So that if a Wall be thicker than one Brick and half, a square Rod upon the Superficies of that Wall will contain above a Rod. And a Rod measured upon the Superficies of a Wall which is less than one Brick and half thick, will contain less than a Rod, when it is reduced to a Brick and half thick, as all Walls (of what thickness soever) must be. And so every Rod upon the Superficies of a Wall that is three Bricks thick, will contain two Rods: and a Rod upon a Wall of four Bricks and a half thick, will contain three Rods, &c. And now for the ready reducing of Walls of any number of Bricks thick, to the thickness of one Brick and half, take this following

General Rule.

Multiply the number of superficial feet found to be contained upon the Superficies of any Wall, by the number of half Bricks which that Wall is in thickness, one third part of that Product shall be the Content of Brick-work reduced to one Brick and half.

And by this Rule, if a Wall of 7 Bricks thick should contain 100 foot upon the Superficies, this multiplied by 14, (the number of half Bricks the Wall is thick) the product is 1400; one third part whereof is 466 $\frac{2}{3}$. And so many foot would that Wall contain, if reduced to a Brick and half thick.

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Example 3.

If a Wall be 72 foot long, 19 foot high, and 7 Bricks thick, how many Rod of Brick-work is there contained in that Wall, when it is reduced to one Brick and half thick?

If you multiply 72 by 19, the product will be 1368; and so many superficial feet doth the Wall contain. — Now because the Wall is 14 half Bricks thick, multiply this number 1368 by 14, and the product will be 19152, one third part whereof is 6384: and so many feet doth the Wall contain, it being reduced to the thickness of one Brick and half. — Lastly, Divide 6384 by 272, the quotient will be 23 Rods, and 128 foot remaining; which is one quarter of a Rod, and 60 foot, or half a Rod wanting 8 foot. And so many Rods doth the whole Wall contain, when it is reduced to one Brick and half thick.

There are other things in Building which are done by the Bricklayer, and measured in another manner, as Chimneys.

For the measuring of Chimneys.

Chimneys in most Buildings are agreed for by the Hearth in each Room; but sometimes they are included in the Building, and to be paid for by the Rod, and so measured with the rest of the Brick-work. — Now when Chimneys are to be measured, the dimensions are to be taken in this manner.

If the Chimney stand singly and alone, not leaning against, or being in a Wall, the usual way is to girt it about; and if the Jaums are but one Brick thick, and wrought upright over the Mantletree to the next floor, then girt it about for a length, and the height of the flo-

ry shall be the breadth at one Brick thick, because of the gathering together to make room for the next Hearth above.

But if the Chimney stand against a Wall, or in a Wall, which is before measured with the rest of the Building, then the breadth of the Breast, and the depth of the two Jaums, is the length, and the height of the Story the breadth, to be multiplied one by the other, and cast up (at one brick or Brick and half) as the Jaums are in thickness, and nothing to be deducted for the Area between the Hearth and the Mantletree, because of the Wyths, and thickning for the next Hearth above.

For the Chimney-shafts, girt them about in the smallest part, for the breadth, and take the length of the Shaft for the height; and cast them up at one Brick thick, in consideration of the Wyths, Pargetting, and Scaffolding, which is required for bringing them up.

There are also some other things, as

Cornices,
Facioes,
Streight Arches,
Skeene Arches,
Hyps and Vallies in Tyling,
Water-courses.

} All which are measured
by the Foot running
measure.

Also

Peeres,
Pilasters,
Rustick-work, &c.

} Valued by the Piece:

There

There comes also to the Bricklayers hands the paving of Cellars, or the like, with Brick ; and for that they are paid by the Yard of 9 foot square. So that

Example 4.

If a Cellar so paved should be 27 foot long, and 18 foot broad, how many yards will be contained therein ?

Multiply 27 by 18, the product will be 486 feet ; which divide by 9 (because there are 9 square feet in one yard) and the quotient will be 54 : and so many yards of Pavement are in that Cellar.

You are here to note, That in the measuring of Brick-work, you must, when you measure the walls of a house, if you take the dimensions of the sides of the house on the out-side of the house, you must take the dimensions of the ends on the inside of the walls.—And note also, that you must make deductions for all Doors and Windows in Brick-work.

Let this suffice for Bricklayers Work ; but before I leave it, take the following Table, and its Use.

A Table shewing how much in length will make a Rod-square of any Brick-wall, from 1 foot high to 30 foot high.

Feet.	Feet.	Inch.
1	272	3
2	126	1
3	90	9
4	68	0
5	54	5
6	45	4
7	38	1
8	34	0
9	30	3
10	27	4
11	24	2
12	22	8
13	20	11
14	19	5
15	18	2
16	17	0
17	16	0
18	15	2
19	14	4
20	13	8
21	13	0
22	12	4
23	11	10
24	11	5
25	10	11
26	10	6
27	10	1
28	9	9
29	9	5
30	9	1

The Height of the Wall in feet.

The Length of a square Rod in feet and inches.

The Use of this Table.

1. *If a Brick-wall be 7 foot high, how much thereof in length will make a Rod?*

Look in the first Column for 7 foot, and right against it in the second, you shall finde 38 foot and 1 inch; and so much in length will make a Rod.

2. *If a Wall be 24 foot high, how much in length will make a Rod?*

Look in the first Column for 24, against which you shall finde 11 foot 5 inches; and so much in length will make a Rod.

Note, This Table supposes the Wall to be one Brick and half thick; if it be thicker or thinner, it must be reduced, as hath been shewed before.

III. Of Plaisterers Work.

Plaisterers Work is principally of two kinds; namely, (1.) Work Lathed and Plaistered, which they call Cieling: And (2.) Work Rendred, which is of two kinds, viz. either upon Brick-work, or in Partitioning between the Quarters. All which they measure by the Yard-square, or the Square of 3 foot, which is 9 foot.

1. For Cieling.

If a Cieling be 58 foot 9 inches long, and 23 foot 7 inches broad, how many yards is contained therein?

Multiply 58 foot 9 inches by 23 foot 7 inches, the product will be 1385 foot $6\frac{1}{2}$ inches: the 6 inches and $\frac{1}{2}$ we reject, and divide 1385 by 9, the quotient is 153 yards, and 8 remaining, which is 8 foot. So that Cieling contains 153 yards 8 foot, or 154 yards wanting 1 foot.

2. For Partitioning.

If a Partition or Partition between Rooms be 132 foot about, and 12 foot high, how many yards is contained therein?

Multiply 132 by 12, the product is 1584; which divided by 9, giveth in the quotient 176: and so many yards is contained in that Partitioning.

Note 1. If there be any Doors or Windows in your Partitioning, you must make deduction for them.

Note 2. When you measure Rendring upon Brick-work, you must account of all you measure, without deduc-

ging; but when you measure Rending between Quarters, you may very well deduct one fifth part for the Quarters, Braces, and Entertoises.

And so much for Plaistering: Whiting and Colouring are measured as Cieling and Partitioning is.

IV. Of Joyners Work.

Joyners do measure all their Work by the Yard, or Square of 3 foot, which is 9 foot, as the Plaisterers do; but in the taking of their dimensions they do differ: for the Joyners say, *We ought to be paid where our Plain goes.* Wherefore in taking of the height of any Room where there is a Cornice above, and swelling Pannels and Moldings downwards, you must with a Line girt over every member of the Cornice, and swellings of the Moldings; which in lussy Work will make the Room much higher than it is. So much for taking the dimensions of the depths of Rooms. Then for measuring about the Room, some Joyners are so unreasonable, that they will desire a Girt that way also; but I disapprove of that, for that it maketh an unreasonable Augmentation. The Dimensions being taken, let us proceed to Computation.

Example 1.

If a Room of Wainscot (being girt) do contain in height 15 foot 7 inches, and be in compass about 286 foot, how many yards doth that Room contain?

Multiply 286 foot by 15 foot 7 inches, the product will be 4456 foot 8 inches; which divide by 9, (the 8 inches omitted) and the quotient will be 495 yards and 1 foot: And so many yards is contained in that Room. There

There is another thing to be observed in the measuring of Joyners Work, and that is in Window-shutters, Cupboard-doors, and suchlike things as are wrought on both sides : For these they account to be paid for work and half work ; for indeed the work is half more, though the Stuff be the same. Wherefore,

Example 2.

Let the Window-shutters about a Room (all of them together) be 78 foot 4 inches, and let the height of them be 6 foot 6 inches, how many yards is contained in these Shutters at Work and half ?

Multiply 78 foot 4 inches by 6 foot 6 inches, the product will be 509 foot 2 inches, the half whereof is 254 foot 7 inches ; which added together, make 763 foot 9 inches, or 764 foot ; which being divided by 9, the quotient will be 84 yards and 8 foot. And so many yards are contained in those Shutters, counting Work and half Work.

Note, That you must make deduction for all Window-lights ; and measure the Window-boards, Checks, and Saphetaes by themselves.

V. Of Painters Work.

The taking of the dimensions of Painters Work, is the same as that of Joyners, by girting of the Moldings : for it is but reason that they should be paid where they spend their Paints and Colour. And the dimensions being taken, the casting up and reducing the feet into yards,

yards, is the same with that and Plaistering or Joynery; but the Painter never accounts Work and half, but once, twice, or thrice done over. I need give no Example in this kind: let those before-going satisfie.

V I. *Of Glasiers Work.*

Glasiers do measure their Work by the Foot square; so that the length and breadth being multiplied together, produceth the Content of any Pane of Glass.

Example :

If a Pane of Glass be 4 foot 9 inches long, and 3 foot 2 inches broad, how many foot is contained therein?

Multiply 4 foot 9 inches by 3 foot 2 inches, the product will be 15 foot and half an inch: and so many foot is contained in that Pane.

Note, That when Windows have half rounds at the top, they measure them at the full height as if they were square. — Also oval or round Windows they measure at the full lengths and breadths of their diameters. — Likewise crocket Windows in Stone-work, are all measured by their full Squares. And there is reason for it: for the trouble in taking dimensions, the waste of Glass in working, and the trouble in setting up, is far more than the Glass is worth.

VII. Of Masons Work.

Masons measure all their Work by the Foot, either Superficial or Solid ; and therefore I need give you no Examples in this kind of Work : for the Rules before delivered in the Mensuration of Superficies and Solids, are sufficient to perform any thing that in Masonry is acquired. And therefore I will give over Measuring for this time.

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